



DEPARTMENT OF THE NAVY
FLEET COMBAT TRAINING CENTER, ATLANTIC
1912 REGULUS AVENUE
VIRGINIA BEACH, VIRGINIA 23461-2098

DAMNECKBASEINST 5090.15B
N622

24 SEP 1996

DAMNECKBASE INSTRUCTION 5090.15B

Subj: HAZARDOUS WASTE (HW) UNDERGROUND STORAGE TANK (UST)
MANAGEMENT PLAN AND HAZARDOUS MINIMIZATION CENTER
(HAZMINCEN) PLAN

Ref: (a) DAMNECKBASEINST 5090.14B
(b) OPNAVINST 5090.1B
(c) Commonwealth of Virginia Department of Environmental
Quality (DEQ) Hazardous Waste Management Regulations
VR 672-10-1
(d) Emergency Planning and Community Right-to-Know Act of
1986 (Sara Title III), 42 U.S.C. 11001 (40 CFR Parts
302, 355, 370 and 372)
(e) CNO Washington DC 131001Z Apr 95
(f) Commonwealth of Virginia DEQ, Water Division,
Requirements VR 680-13-02
(g) OPNAVINST 4110.2
(h) DAMNECKBASEINST 5090.1

Encl: (1) Hazardous Waste Disposal Procedures
(2) Hazardous Waste Coordinator (HWC) Training Record
(3) Pollution Prevention: Hazardous Materials
Reutilization and Hazardous Waste Minimization
(4) Hazardous Waste Satellite Accumulation Area
Management
(5) Base Hazardous Waste 90 Day Accumulation Area
Inspection Schedule
(6) Underground Storage Tank (UST) Leak Detection
Monitoring

1. Purpose. To establish procedures and delineate responsibility for HW minimization, management and disposal. Also to establish procedures and delineate responsibility for UST management. Reference (a) contains detailed instructions for spill response to oil and hazardous substance spills, which includes details concerning emergency response personnel, equipment and reporting.

2. Cancellation. DAMNECKBASEINST 5090.15A. This instruction has major revisions and should be read in its entirety.

3. Discussion. Reference (b) establishes the Navy Hazardous Waste Environmental Management Program and specifically requires Navy shore activities to develop hazardous waste management plans in compliance with all applicable federal, state and local regulations. This instruction assigns responsibility and provides instruction for appropriate waste handling and management to ensure conformance with Environmental Protection Agency (EPA) regulations and Virginia hazardous waste regulations

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per reference (c). Reference (d) further requires federal facilities to reduce HW releases, including disposal, by 50% from 1994 to 1997. This instruction provides procedures to accomplish this goal by implementation of the Hazardous Minimization Center (HAZMINCEN) Plan required by reference (e). This instruction also includes UST management procedures to comply with reference (f) and to delineate responsibilities for release detection and reporting.

4. Background. Reference (b) states that an integral part of the Navy's mission is to prevent pollution, protect the environment and conserve natural resources. All Navy personnel must develop and exhibit an environmental protection ethic to meet Navy goals. Mishandling HW and failure to properly manage USTs can cause personal injury, health and environmental problems and can result in personal liability. As a federal facility we must comply with all federal, state and local regulations to protect the environment. The Resource Conservation and Recovery Act (RCRA) regulates the management of HW and USTs. RCRA imposes requirements on HW generators, transporters and facility operators which treat, store or dispose of HW. RCRA provides cradle to grave tracking of HW through a record keeping system that requires the manifesting of HW shipments from point of generation to disposal. Hazardous Material (HM) is governed by several sets of regulations including the Hazardous Material Transportation Act, Occupational Safety Health Administration (OSHA), the Clean Water Act, the Clean Air Act, RCRA, the Toxic Substance Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act and the Emergency Planning and Community Right-To-Know Act.

5. Scope. This instruction applies to all commands and tenant commands, as well as all personnel, military and civilian, assigned to or located on the Fleet Combat Training Center, Atlantic, Dam Neck complex.

6. Definitions

a. Authorized Use List - A current inventory of HM assigning a unique identifier track number that relates it to a Material Safety Data Sheet (MSDS) with the same identifier.

b. Corrosivity - A material is corrosive if a representative sample of the material has any of the following properties as listed in 40 CFR 261.22:

(1) It is aqueous and has a pH less than or equal to 2 or equal or greater than 12.5, or

(2) It is a liquid that corrodes steel at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees C (130 degrees F).

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c. Excess Hazardous Material (EHM) - Ready-for-issue excess material classified as HM and no longer needed by the using activity.

d. Free Product - Refers to a regulated substance that is present as a nonaqueous phase liquid (e.g., liquid not dissolved in water).

e. Hazard Communication (HAZCOM) - A phrase and acronym derived from 29 CFR 1910.1200, the OSHA HAZCOM Standard, that, when used as a noun or an adjective, means a requirement or requirements related to the standard. The performance elements of the standard involve the following: a list of hazardous chemicals; MSDS's; labels; and forms of warning; personnel training; requirements for non-routine tasks; requirements for contractor employers and employees; personnel accessibility to the list of chemicals and MSDS's; and a HAZCOM program plan. Reference (g) describes the Navy's HAZCOM Program.

f. Hazardous Material -- Any material that:

(1) Is regulated as a HM per 49 CFR 173.2, or

(2) Requires a MSDS per 29 CFR 1910.1200, or

(3) During end use, treatment handling, packaging, storage, transportation, or disposal meets or has components which meet or have the potential to meet the definition of a HW as defined by 40 CFR 261, Subparts A, B, C, or D. Designation of a material by this definition, when separately regulated or controlled by other instructions or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this instruction for "control" purposes. Such materials include ammunition, weapons, explosives and explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos, mercury and Polychlorinated Biphenyls (PCBs). Nonetheless, the foregoing materials should be considered hazardous to the extent personnel exposure may occur incident to manufacture, storage, use and demilitarization of these items.

g. Hazardous Minimization Center (HAZMINCEN) - A Fleet Industrial Supply Center (FISC) operated hazardous material management store which utilizes the Navy's Consolidated Hazardous Materials Utilization and Inventory Management Program (CHRIMP). The base HAZMINCEN is located at Building 559.

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h. Hazardous Substance - A material included in a specific list of chemicals designated by the EPA in 40 CFR 302 which pose a threat to the environment when discharged or spilled. Hazardous substances are regulated only when they are discharged in certain quantities (called reportable quantities). Reportable quantities are identified in 40 CFR 302. Additionally, all materials meeting the definition of a HW have been defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as hazardous substances with a reportable quantity as listed in 40 CFR 302.

i. HW - Any substance other than fuel, oil or nonsynthetic hydraulic fluid which has served its originally intended purpose and exhibits the characteristics of ignitability, corrosivity, reactivity or Extraction Procedure (EP) toxicity or is listed in 40 CFR 261. Improper discharge to the environment of any amount of HW may pose a significant threat to public health or to the environment.

j. HW Generator - Any person, by site location, whose act or process produces HW or whose act first causes a HW to become subject to regulation.

k. HW Manifest - A legal shipping document which must originate with and be signed by the HW generator having an EPA Identification Number before the HW may be transported or offered for transportation off the installation. The generator must provide specific information on the manifest (40 CFR 262) and designate one permitted Treatment, Storage and Disposal (TSD) facility to handle the waste. The EPA document is EPA form 8700-22A. This is a legal document and signature authority for the base is designated in writing by the FCTCLANT Commanding Officer.

l. HW Minimization (HAZMIN)/Pollution Prevention (PP) - HAZMIN and PP are based on the premise that the best way to manage HW is to never produce it in the first place. HAZMIN and PP consists of three parts:

(1) Source reduction - decreasing HW generation by minimizing and controlling HM acquisition and use by applying best management practices and inventory control, this is the concept of the HAZMINCEN. Also, substituting less hazardous materials for HMs and applying engineering or process controls to equipment design in Navy processes and procedures.

(2) Recycling - recycling HW to return it to ready-for-use state is the next most desired option. By recycling the substance, less new product is needed and consequently less product goes to disposal.

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(3) Treatment - Technological strategies to reduce HW volume or to reduce it to a nonhazardous state is the least desirable option. Treatment can reduce the threat to public health but does not accomplish solid waste reduction, i.e., there is still disposal costs.

m. Hazardous Waste Satellite Accumulation Area (HWSAA) - An area for HW accumulation located at the point of generation with no more than 55 gallons total of HW. There is no time limit on accumulating HW, however, on the day more than 55 gallons of HW is accumulated the container(s) must be marked with that date and transferred within three calendar days to the base HW 90 Day Accumulation Area (AA).

n. HW 90 Day AA - The area where all HW generated on base is collected to be transported off base for disposal. The base 90 Day AA is located behind building 585 and is managed by Base Civil Engineer, Environmental Branch.

o. Ignitability - A material is ignitable if a representative sample of the material has any of the following properties as listed in 40 CFR 261.21:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a closed-cup flash point less than 60 degrees C (140 degrees F).

(2) It is not a liquid and is capable under standard temperature and pressure of causing fire through friction, absorption of moisture, or spontaneous chemical changes and when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas.

(4) It is an oxidizer.

p. Listed HWs - Listed HWs are identified in 40 CFR 261.31, 261.32 and 261.33.

q. Material Safety Data Sheet (MSDS) - An MSDS, OSHA Form 174 or an equivalent form containing the identical data elements must be used by manufacturers of chemical products to communicate to users the chemical, physical, and hazardous properties of their product to comply with the OSHA HAZCOM Standard, 29 CFR 1910.1200. The completed form identifies key information on the product: name, address, and emergency contact for the manufacturer; the identity of hazardous ingredients; physical/chemical characteristics; fire and explosion hazard data; reactivity data; health hazard data; precautions for safe handling and use and control measures.

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r. Oil - Any petroleum based fluid including crude oil, hydraulic fluid, kerosene, diesel, fuel oil, lubrication and oil waste (see enclosure (1) for list of products not acceptable as oily waste).

s. Reactivity - A material is reactive if a representative sample of the material has any of the following properties as listed in 40 CFR 261.23:

(1) It is normally unstable and readily undergoes violent changes without detonating;

(2) It reacts violently with water;

(3) It forms a potentially explosive mixture with water;

(4) It generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment, when mixed with water;

(5) It is a cyanide- or sulfide-bearing material which, when exposed to pH conditions between 2 and 12.5, generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment;

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or is heated under confinement;

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or

(8) It is a forbidden explosive or Class A or Class B explosive as defined in 49 CFR 173.51, 173.53 or 173.88.

t. - Release - Any spilling, leaking, emitting, discharging, escaping, leaching, or disposing from an UST into ground water, surface water or subsurface soils.

u. Release Detection - Determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

v. Solid Waste - Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and

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from community activities. Solid waste does not include solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under Section 401 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

w. Toxicity - A material exhibits the characteristic of toxicity if the extract from a representative sample of the material contains any of the 39 contaminants in 40 CFR 261.24, Table I, at a concentration greater than the respective value given in the table. A material that exhibits the characteristics of toxicity, but is not listed waste, has the EPA hazardous waste number specified in the table which corresponds to the toxic contaminant causing it to be hazardous.

x. UST - A UST with more than 10 percent of its volume underground (including connective piping) containing petroleum or any of the 700 substances regulated under the Comprehensive Environmental Response, Compensation and Liability Act.

7. Policy. It is the policy of this command that all commands and all personnel, military and civilian, involved in any aspect of HM/HW use, handling, storage or disposal shall comply with this instruction, and exhibit personal leadership in developing methods to reduce EHM/HW and prevent HM/HW spills. The use, storage and/or disposal of non-DOD owned HM/HW is prohibited. All commands and all personnel, military and civilian, involved in any aspect of UST use (filling, emptying, monitoring or managing contents) shall comply with this instruction for proper procedures for release prevention and detection.

8. HW Management

a. Activities using or handling HM/HW (including Safety/Kleen products), oil products and heating oil shall:

(1) Annually (by 15 January of each new calendar year) designate a Hazardous Waste Coordinator (HWC) and at least one alternate to manage HW at their activity. The activity Commanding Officer shall submit names and complete enclosure (2) with signatures to the Commanding Officer, Fleet Combat Training Center, Atlantic, Dam Neck, Base Civil Engineer Directorate, N622. The HWC shall be at least a First Class Petty Officer.

(2) Comply with reference (g). Contact the Safety Office at 433-6257 for assistance in the establishment of a HAZCOM program as required by reference (g).

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(3) Develop Pollution Prevention (PP) policies, including HAZMIN, that result in achieving reduction in the disposal of HW and the elimination of EHM. Procedures shall include, as a minimum, the management practices outlined in enclosure (3). All HW turned in requires the following certification by the HWC, which also appears on the base manifests signed by the base CO's representatives:

"I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable."

(4) Assure no HW is transported off base or improperly disposed. Under no circumstances are personnel permitted to transport or dispose of HW outside the FCTCLANT, Dam Neck complex.

(5) Assure HW or EHM is never abandoned or allowed to be released into storm drains or sanitary sewers.

(6) Assure all manifests for transporting HW by Safety Kleen, construction or service contractors, and military self-help or other parties working in their facilities, are properly signed by Base Civil Engineer (BCE) Environmental Branch personnel. Manifests are legal documents and under no circumstances are personnel permitted to sign manifests. The Commanding Officer, FCTCLANT will designate in writing personnel authorized to sign manifests.

(7) Assure that no personally (non-DOD) owned HM/HW is stored or used in their spaces. All HM used on the base must be inventoried on a Authorized Use List.

(8) Assure all EHM is returned to the base HAZMINCEN.

-(9) Assure compliance with the HAZMINCEN Plan.

b. Activity HWCs shall:

(1) Attend semi-annual HWC training sponsored by the BCE Environmental Branch.

(2) Inspect the HWSAA in accordance with enclosure (4), if required by enclosure (4).

(3) Assure that the total amount of HW accumulated does not exceed 55 gallons. When 55 gallons is accumulated, mark the HW with the date of accumulation at 55 gallons and contact FCTCLANT BCE Environmental Branch at 433-6864/6709 to arrange turn-in at the base HW 90 Day AA.

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(4) Assure adequate spill control/containment material is on-hand to contain and/or clean up a spill and spill response procedures are followed per reference (a).

(5) Identify the composition and characteristics of their particular HW. If the composition or characteristics of the particular HW are not known, the HWC shall contact the BCE Environmental Branch at 433-6709/6864 to arrange testing of the material to identify.

(6) Report immediately to the BCE Environmental Branch at 433-6709/6864 if any new waste streams, either changes in types or quantities of HW generated, are produced.

(7) Conduct an annual internal Environmental Compliance Evaluation audit of their HW handling procedures. Checklists and reporting requirements for the audit will be provided by BCE Environmental Branch.

(8) Maintain records (i.e., 1348's, logs or inventory records) and report to the BCE Environmental Branch the Activity's HW minimization and pollution prevention efforts and quantities of HW recycled, re-used or reclaimed and also quantities of EHM diverted from disposal by reissuing to other commands. HWs recycled include such materials as, but not limited to, lead acid batteries, dental amalgam, photo processing silver recovery, lead recovery, brass recovery and CFC/HCFC and ethylene glycol reclaiming.

c. Service contractors, construction contractors and all other persons working or residing on base shall:

(1) Comply with contract provisions to arrange proper disposal of HW generated, and assure the BCE Environmental Branch signs all manifests for transport of HW off base.

(2) Notify BCE, Environmental Branch, at 433-6709/6864 if you are accumulating a HW at the generation site over a period greater than three days.

(3) If accumulating waste over a period of more than three days, manage site as a HWSAA and assure compliance with enclosure (4).

(4) Comply with reference (a) for reporting spills or releases of HM/HW.

(5) Contact BCE Environmental Branch at 433-6709/6864 concerning any questions regarding disposal of HW.

d. FCTCLANT BCE (N622, Environmental Branch) shall:

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(1) Inspect the base HW 90 Day AA in accordance with enclosure (5).

(2) Semi-annually inspect the HWSAAs and notify the activity HWC of any deficiencies.

(3) Provide semi-annual HWC training and technical guidance for the management and disposal of HW.

(4) Coordinate and distribute annual internal Environmental Compliance Evaluation audit checklists and reporting requirements.

(5) Provide HW pick-up service and transport of HW from the generator to the base HW 90 Day AA.

(6) Provide weekly inventory report of base HW 90 Day AA to the base fire department for fire response readiness.

e. FCTCLANT Safety Manager (Code 00K) shall:

(1) Provide guidance to commands in the establishment of a HAZCOM program.

(2) Provide guidance on appropriate personal protective equipment for handling HM, EHM or HW.

(3) Inspect HM storage at FCTCLANT facilities as required by OPNAVINST 5100.23B and Federal Occupational Safety and Health (OSH) regulations, note discrepancies and recommend corrective actions.

(4) Maintain a base HM Authorized Use List (AUL) and a copy of all tenant command AULs.

(5) Assist all requests from activities to locate users for their EHM on base and complete the appropriate portions of the EHM Re-use Certification Form in enclosure (1). No EHM is to be transported off base or disposed as HW at the Base HW 90 Day AA without certification from Safety that no local user can be found.

9. HW Disposal

a. Activities turning in HW for disposal shall:

(1) Follow procedures set forth in enclosure (3) to exhaustively pursue reutilization of EHM or minimization of HW (including EHM). Disposal of HW at the base HW 90 Day AA shall be a LAST RECOURSE.

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(2) Complete a HW Disposal Form in accordance with enclosure (1), Attachment B, documenting the type and quantity of material. This information must be complete and accurate. An MSDS must be included with the HW Disposal form. An EHM Re-use Certification Form, signed by the HAZMIN Center and activity supply officer, see enclosure (1), Attachment C, must accompany all EHM.

(3) Properly prepare HW (including EHM) for disposal in accordance with enclosure (1). The HWC shall ensure that HW and EHM is never abandoned or allowed to be released into storm drains or sanitary sewers.

(4) Arrange with the BCE Environmental Branch at 433-6864/6709 for HW pick-up.

b. BCE (N622, Environmental Division) shall:

(1) Ensure that the HW disposal form in enclosure (1) is filled out completely and accurately prior to accepting the HW.

(2) Properly mark, repackage, handle and store HW.

(3) Sample and analyze HW for proper identification and disposal.

(4) Notify Director, Defense Reutilization and Marketing Office (DRMO) to receive and pick up HW in a timely manner.

(5) Assure documentation such as manifests, profiles, reports, surveys, DD Form 1348-1's, and inspection checklists comply with all federal, state and Navy regulations to ensure the proper management of HW.

(6) Sign all manifests for transport of HW off the base.

10. Hazardous Minimization Center (HAZMINCEN) Plan - The Fleet Industrial Supply Center (FISC), Norfolk operate the Hazardous Minimization Center (HAZMINCEN) at FCTCLANT Dam Neck utilizing the Navy's Consolidated Hazardous Materials Reutilization and Inventory Management Program (CHRIMP). The HAZMINCEN was implemented in January 1996 to provide a means of controlling the inventory of hazardous materials (HAZMAT) and assist FCTCLANT activities in the minimization of HAZMAT. The HAZMINCEN is designed and configured to meet Federal, State and local environmental and safety regulations.

a. Memorandum of Agreement (MOA) procedure:

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(1) The contract for services between the FISC HAZMINCEN and FCTCLANT has been established through a Memorandum of Agreement (MOA). The FCTCLANT Supply Officer is designated as the Base Liaison Officer between FISC Norfolk and FCTCLANT customers. The Base Liaison Officer is responsible for ensuring that customer service and compliance requirements are met in accordance with MOA.

(2) A separate MOA will be signed between FISC and each participating FCTCLANT activity. The MOA will spell out the services provided to the individual activities and the responsibilities of the participating activities. Billing and payment procedures will be specified in the MOA with each participating activity.

(3) **HAZMAT** containers provided by the HAZMINCEN are labeled with bar codes for inventory control. **HAZMAT** requisitioned by participating activities is tracked by scanning the material bar codes, and recording the activity which purchases the material, the date of the material purchases, and the amount of material purchased. Participating activities are issued a 7-day supply of material. When all of the material is used, the empty containers are returned to the **HAZMINCEN**. The empty containers are then re-scanned, recorded and disposed or recycled. The **HAZMINCEN** will only accept the return of empty cans or partially empty cans of material which were originally purchased at the **HAZMINCEN**.

b. The FISC will be responsible for providing the following general services to each participating activity:

(1) Transportation services (**HAZMAT** delivery and pick up at designated sites per the MOA with each activity).

(2) Maintaining a sufficient **HAZMAT** stock to meet the needs of FISC customers.

(3) Providing materials with usable shelflives and issuing free items in the smallest unit of issue to ensure maximum utilization.

(4) The repackaging of **HAZMAT** returned by FISC customers, if required.

(5) Providing an accurate MSDS with all **HAZMAT** delivered, if required.

(6) Per the request of the customer, FISC will provide a satellite **HAZMAT** collection point at the customer site and provide for removal of all recyclable materials placed therein.

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(7) An itemized receipt of delivered **HAZMAT** to be signed by both the delivering and receiving parties will be provided.

(8) The **HAZMINCEN** will provide training for personnel working in the **HAZMINCEN**.

c. All contracted FCTCLANT Dam Neck customers will be generally responsible for providing the following:

(1) A point of contact (POC) and alternate for the **HAZMINCEN**. The POC's should be the activities Hazardous Material Coordinator or equivalent.

(2) A joint inventory of all **HAZMAT** turned into the **HAZMINCEN**. Upon completion of the inventory all "A" condition material will be given to FISC Norfolk in exchange for customer credit. Credit can be used by the customer to purchase **HAZMAT** from the **HAZMINCEN**. Other material not deemed usable will be turned in for disposal using the applicable customer disposal line of accounting.

(3) Customers will store no more than one week's supply of **HAZMAT**.

(4) All **HAZMAT** not used for the intended purposes will be returned to the **HAZMINCEN**.

(5) **HAZMAT** retained overnight will be stored outside in approved flammable storage lockers. Storage lockers will be subject to inspection by the FCTCLANT Safety Officer.

(6) If a satellite **HAZMAT** collection point is requested by the customer, the customer will assign a **HAZMAT** Coordinator and alternate to manage the collection point, segregate recyclable materials according to color code, itemize recyclable materials on an inventory sheet, and ensure the cleanliness of the collection point.

(7) Each participating activity will be asked to provide one temporary and additional duty (TAD) personnel, within the paygrades E3, E4, or E5, to work in the **HAZMINCEN** for a minimum of one year or equivalent funding for labor costs as agreed upon in the FISC/Customer MOA. FISC will provide the training required for TAD personnel.

(8) Participating activities must conduct all **HAZMAT** transactions exclusively with the FISC Norfolk **HAZMINCEN** as defined within the individual activity MOA.

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11. Hazardous Substance and Oil Spill Response. Reference (a) identifies requirements for response to oil and Hazardous Substance (OHS) release.

12. UST Management

a. Activities using USTs shall:

(1) Comply with reference (a) for reporting any suspected spills or releases. Evidence to suspect releases includes unusual operating conditions, i.e., erratic behavior of a dispensing pump; visual or olfactory confirmation of product in groundwater monitoring well; strong petroleum odor in water or air nearby a tank; inconsistencies in inventory measurements and unexplainable loss of product.

(2) Appoint a primary and alternate point of contact to conduct groundwater monitoring or automated alarm system monitoring for release detection in accordance with enclosure (6), and assure proper training of the individuals by contacting the BCE Environmental Branch at 433-6709.

(3) Comply with enclosure (6) for release detection using groundwater monitoring wells.

(4) Maintain operating, inventory and release detection records.

(5) Assure proper operation and maintenance of tank system, especially automated tank alarm systems.

(6) Not accept a new UST for use or fill a new UST without confirming with BCE that proper State UST notification has been made.

(7) Not fill, refill, empty, abandon, nor cease using an UST without notification to and approval from BCE.

(8) Develop plans to prevent releases during transfers of product into or out of their UST, and maintain spill control materials immediately accessible during transfers. Enclosure (6) has additional guidance on establishing procedures to prevent overfill spills.

(9) Ensure at least one person is familiar with the requirements of reference (a) is present and observes product transfer operations to USTs.

b. BCE (N622, Environmental Branch) shall:

(1) Maintain records of monthly well monitoring release detection.

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(2) Make proper notification of suspected UST releases in accordance with reference (a).

(3) Provide training as requested to conduct release detection.

(4) Assure all requirements of federal and state regulations are met.

(5) Act as a base representative and liaison between all regulators and tenants.

13. Action. Implement and comply with the provisions of this instruction.

14. Review. The Base Civil Engineer is responsible for the review and accuracy of this instruction.

15. Forms. Hazardous Waste Disposal Form (FCTCLANT 5090/1 (Rev 8-96)), EHM Re-Use Certification Form (FCTCLANT 5090/2 (Rev 8-96)), Hazardous Waste Coordinator Training Form (FCTCLANT 5090/3 (3-95)), Satellite Accumulation Area (SAA) Inspection Checklist (FCTCLANT 5090/4 (3-95)), 90-Day Accumulation Area Inspection Log (FCTCLANT 5090/5 (3-95)), FCTCLANT Monitoring Well Inspection Form (FCTCLANT 5090/6 (3-95)) are maintained in the Base Civil Engineer Office, Building 585.

16. Reports. Annual Environmental Compliance Evaluation para. 8b(7), Annual Report of HW Minimization and Recycling paragraph 8b(8), Quarterly Hazardous Waste Satellite Accumulation Area Inspection (FCTCLANT 5090/4), Annual and Semi-annual Update Hazardous Waste Coordinator Training Record (FCTCLANT 5090/3) and Monthly Monitoring Well Inspection (FCTCLANT 5090/6).


E. J. FOUGHT

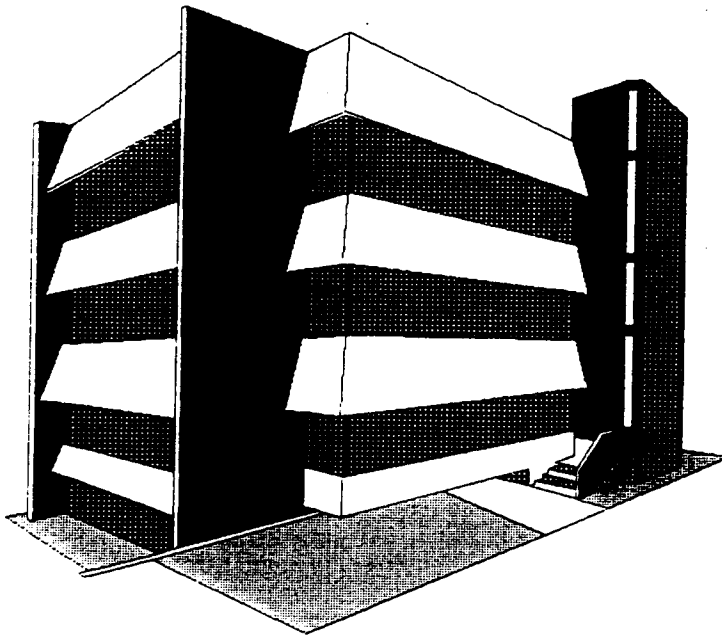
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HAZARDOUS WASTE DISPOSAL PROCEDURES



AT DAM NECK BASE

Enclosure (1)
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HAZARDOUS WASTE (HW) DISPOSAL PROCEDURES

I. HW TURN-IN PROCEDURES

A. If a material is used and meets the definition of a HW or if it becomes a HW after all other routes of re-utilization and minimization have been attempted, the last management alternative is to arrange for disposal at the base HW 90 Day AA.

B. All material turned in to the base HW 90 Day AA is managed as waste and tenants are charged for lab testing for waste identification and all disposal costs.

C. The following procedures are required to turn in any waste at the base HW 90 Day AA:

1. Follow guidance in section III of this enclosure to prepare specific wastes addressed:

- a. Excess Hazardous Material (EHM)
- b. Paint
- c. Oil paint brushes, rollers and rags
- d. Empty paint cans
- e. Aerosol cans
- f. Cleaning rags/shop rags
- g. Unknowns
- h. Lead-acid batteries
- i. All other batteries
- j. Asbestos
- k. Used oil
- l. Oil filters
- m. Silver recovery units
- n. Gas cylinders
- o. Medical (infectious) waste
- p. Appliances

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- q. Low level radioactive equipment
- r. Self-luminescent exit signs
- s. Empty metal containers
- t. Construction debris
- u. CD-Rom Media
- v. Fluorescent tubes

2. Prepare drums for transportation of wastes in accordance with section II of this enclosure.

3. Each generator will ensure that appropriate containers are used for HW or used oil. Used oil consists of petroleum products including lubricating oils, diesel fuels (uncontaminated), jet fuels and other petroleum-based products. Synthetic products should be kept in separate drums. Attachment A outlines products that must be segregated from used oil.

4. **DO NOT CROSS CONTAMINATE WASTE STREAMS!**
Uncontaminated petroleum products are not HW, but they become regulated if mixed with HW. Petroleum-based products contaminated with HW's must be labeled as HW. Used oil tanks must not receive hazardous materials/wastes.

5. Call BCE Environmental Division at 433-6709/6864 to arrange for disposal of the HW to the base HW 90 Day AA.

6. Complete the HW disposal form, Attachment B

7. Attach an MSDS to the HW disposal form

8. Complete the EHM Re-use Certification Form, (FCTCLANT 5090/2 (Rev. 8-96)) Attachment C, for all EHM.

II. HW DRUM PREPARATION

A. Drums: All 10 - 55 gallon drums must be properly sealed, ensuring bung plugs and screw caps are screwed down snugly to prevent possible leakage while in transport.

B. All containers used for HW collection must be:

1. Authorized by DOT for transportation of the specific waste material as shown in 49 CFR 172;

2. Always closed except when necessary to add or remove waste. Closure rings or bungs must be tightly fitted;

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3. In good condition having no dents or corrosion;
 4. Made of, or lined with, a material which will not react with and is compatible with the HW it will be used for;
 5. Opened, closed and handled in a manner to prevent rupture or leakage of the containers;
 6. A plastic liner must be used for wastes which are corrosive.
 7. Do not fill drums with liquid to the brim, five percent of container capacity must be left for expansion, approximately six inches from the top for 55 gallons and two inches from the top for five gallon containers.
- C. New 55 gallon drums are not necessary for HW collection. Drums may be reused for HW disposal under the following conditions:
1. The drum, once closed, must be held for at least 24 hours and inspected for leakage immediately prior to transportation;
 2. A plastic liner must be used for wastes which are corrosive;
 3. The original contents of the drum are compatible with the HW to be disposed of.
- D. Container contents marking is required and the words "Hazardous Waste" must be visible on the container. Failure to properly label hazardous waste containers is a serious violation of the RCRA.

E. If there are any questions contact the Base Civil Engineer, Environmental Branch at 433-6864/6709.

III. SPECIFIC TYPES OF WASTE

A. EXCESS HAZARDOUS MATERIAL (EHM)

1. Follow all instructions in enclosure (3) to eliminate disposal of EHM. All EHM is to be turned in to the base HAZMIN Center at Building 559.
2. No EHM will be accepted at the base HW 90 Day AA without a completed EHM Re-use Certification Form (FCTCLANT 5090/2 (Rev. 8-96)) - certifying the base HAZMIN Center has evaluated the material for possible re-use.

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B. PAINT

1. Segregate Oil Based Paint from Latex Paints.
DO NOT MIX. LATEX IS NON-HW.
2. Reuse paints if possible. Follow procedures in enclosure (3) for EHM reutilization.
3. If you do not have a designated HW Satellite Accumulation Area (HWSAA), then you must turn-in waste paint at the time of generation.
4. Label oil paint cans "HAZARDOUS WASTE."
5. Label latex paint cans "NON-REGULATED WASTE."
6. Follow turn-in procedures in section I of this enclosure.

C. OIL PAINT BRUSHES, ROLLERS AND RAGS

1. Reuse if possible.
2. Clean off on edge of paint can.
3. Let items air-dry.
4. Place in drum or double bag and label "HAZARDOUS WASTE."
5. Follow turn-in procedures in section I of this enclosure.

D. EMPTY PAINT CANS

1. No residual liquid
2. Store on pallets
3. Air-dry for 24 hours
4. Call base Recycling at 433-6102/6264/6265 for turn-in.

E. AEROSOL CANS

1. Empty or partially empty unpunctured aerosol paint cans, other than zinc chromate paint, lead paint and freon, can be placed in a plastic bag (no more than 25 per bag) or drum and turned-in to the base HW 90 Day AA.

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a. Label the bag or drum "HAZARDOUS WASTE: Empty aerosol cans."

b. Follow turn-in procedures in section I of this enclosure. However, no MSDS is required for turn-in.

2. Zinc chromate aerosol paint cans, lead aerosol paint cans and freon aerosol cans, whether empty, full or partially full, must be segregated from other paint aerosols and turned-in to the base HW 90 Day AA for disposal as HW:

a. Place in bag or drum

b. Label "Hazardous Waste Aerosol Cans."

c. Follow turn-in procedures in section I of this enclosure. You must have MSDS.

F. CLEANING RAGS/SHOP RAGS

1. All cleaning/shop rags must be placed in double plastic bags or drums and labeled as to what they were used for, e.g., hydraulic fluid, PD-680, freon, etc. List all contaminants on the bag or provide MSDS of hazardous materials used in cleaning process.

2. Label rags "HAZARDOUS WASTE."

3. Follow turn-in procedures in section I of this enclosure.

G. UNKNOWNNS

1. Generators must do their utmost to prevent a HM/EHM/HW or other waste from losing its identity and becoming "unknown." Unlabeled, empty barrels collecting rainwater become "unknowns."

2. Call BCE Environmental Branch at 433-6709/6864 to have the unknown analyzed for disposal. Analysis of an unknown costs approximately \$1,000.

H. LEAD-ACID BATTERIES

1. Lead Acid Batteries - only lead acid batteries have been specifically excluded from RCRA regulations as Hazardous Waste.

a. Generators are required to prepare the batteries for transport to DRMO in accordance with attachment D.

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b. Turn-in recyclable lead-acid to the base HW
90 day AA.

2. Leaking, damaged or cracked lead-acid batteries are hazardous waste. These must be turned in to the base HW 90 Day AA.

a. Double bag and place in drum.

b. Label "HAZARDOUS WASTE."

c. Follow turn-in procedures in section I of this enclosure.

I. ALL OTHER BATTERIES

1. All other battery types, such as battle lantern batteries, C, D, AA, AAA, 9-volt, etc.. carbon batteries and nickel-cadmium and lithium batteries are to be turned in to the base HW 90 Day AA.

a. Double bag or place in drum

b. Label "Hazardous Waste"

c. Follow turn-in procedures in section I of this enclosure.

2. LITHIUM BATTERIES HANDLING (BA-5590/U)

a. As reported by NAVORDCEN Indian Head 111043Z December 1995, lithium batteries (BA-5590/U) have violently vented as a result of overheating during routine disposal discharges. In these cases, the complete discharge device (CDD) switches have been depressed, then the batteries have been repacked and stored in their cardboard shipping containers. The Army has also documented cases where a BA-5590/U battery has vented violently at the moment when the CDD switch was activated. This reaction is due to a short circuit caused by pushing the switch too hard and is only characteristic of BA-5590/U batteries built by SAFT AMERICA. A BA-9950/U battery was involved in a fire when it was stored with SAWE/MILES II GPS units. The CDD had not been activated but the battery was under load from the device. The battery was being kept inside of its cardboard unit container and the presence of this combustible material aggravated the hazard. A BA-5590/U battery vented with minor explosive force during a routine state-of-charge check using a

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CHEMTRONICS model LS-94 state-of-charge meter. Finally, a BA-5800/U battery being used in an AN/PSN-11 GPS unit (PLGR) exploded during standard discharge using the CDD. The battery had been removed from the equipment and was sitting on a countertop in an air-conditioned space.

b. Due to these recent problems, all Department of the Navy (DON) personnel will refrain from pushing the CDD switched on batteries so equipped. When a battery has been removed from its associated equipment at end-of-life, turn in to the base HW 90 Day AA for disposal following the procedures in paragraph (1) above. DON personnel will also discontinue all use of state-of-charge meters on BA-5590/U batteries manufactured by SAFT AMERICA. When available and allowed for substitution, NAVORDCEN recommends the use of non-lithium batteries.

J. ASBESTOS

1. Disposal of safes and file cabinets that contain asbestos:

a. Call FCTCLANT Safety Office at 433-6257 to test for asbestos or call BCE Trouble Desk at 433-6621 to order a PWC service call to test safe or file cabinet for asbestos.

b. If it does contain asbestos, then it must be double wrapped in plastic by the generator.

c. Label "ASBESTOS"

d. Turn-in to the base HW 90 Day AA. Follow turn-in procedures in section I of this enclosure.

2. Disposal of asbestos doors and clutch brakes:

a. The generator must double wrap the items in plastic..

b. Label "ASBESTOS"

c. Turn-in to the base HW 90 Day AA. Follow turn-in procedures in section I of this enclosure.

K. USED OIL

1. Petroleum based oils and fluids (used oil) can be recycled. Synthetic based oils and fluids cannot be recycled. **Keep petroleum and synthetic based products separate!** If petroleum and synthetic products are mixed together they cannot be recycled. Attachment (A) to enclosure (1) lists products that should not be mixed with petroleum based oils.

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2. Used oil and hydraulic fluids (petroleum or synthetic) contaminated with a HW, such as freon, must be managed as HW. All contents must be listed on the drum and the drum labeled as "HAZARDOUS WASTE."

a. Petroleum products contaminated with hazardous waste shall be turned in to the base HW 90 Day AA.

b. Follow turn-in procedures in section I of this enclosure.

3. Used oil shall be disposed at a used oil tank managed by MWR recycling. Attachment A lists acceptable products that may be placed in a used oil tank. Contact MWR at 433-6266 for guidance and pick-up information.

L. OIL FILTERS

a. Properly drained used oil filters are accepted at DRMO for metal recycling. Call 444-5600 or 445-1312 for a turn-in appointment. Used oil filters are not a hazardous waste and will not be accepted at the base HW 90 Day AA.

b. Ensure that your command is no longer purchasing terne-plated filters. Terne-plated filters must be disposed of as hazardous waste.

c. Puncture the filter anti-drain back valve or the filter dome end and hot drain, or dismantle and hot-drain the filter. Hot-draining is accomplished by removing the filters from engines at operating temperatures. Drain for a minimum of 24 hours. Or crush and hot-drain for a minimum of 24 hours.

d. As a practical matter, if an oil filter is picked up by hand and used, oil immediately drips or runs from the filter, the filter should not be considered to be drained.

e. Ensure the used oil is drained into a suitable container and then disposed in your used oil tank.

f. Place drained filters (24 hours) in a 30 gallon drum. Make sure the drum is properly sealed, using the locking ring and bolt.

g. Ensure immediate transport of a full drum to DRMO. The longer filters are collected in a drum the more likely you will experience a build up of oil in the drum and your drum will not be accepted.

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h. DRMO accepts metals from Dam Neck every Friday morning without appointment, 0730-1400.

M. SILVER RECOVERY UNITS

1. Passive cell silver recovery cartridges and flake silver from electrolytic recovery units are managed as non-regulated material and transported to DRMO, Norfolk for precious metals recovery. Call Mr. Henry Stewart at 444-5113 for an appointment to deliver the cartridges or electrolytic flake silver to DRMO. A completed DD Form 1348-1 is required for turn-in.

2. Steel wool silver recovery units are managed as a HW, even though the silver can be recovered. The steel wool recovery units must be transported to DRMO by manifest. To turn-in steel wool silver recovery units:

a. Call Mr. Henry Stewart at 444-5113 for an appointment to deliver the units to DRMO for precious metal recovery.

b. Call Mr. Bill Whitmire at PWC Norfolk and request service to manifest and transport steel wool recovery units from Dam Neck to DRMO Norfolk. Assure BCE Environmental Branch signs the manifest when transported. To order the service you must have a PWC job order number. For assistance in obtaining PWC services call BCE Environmental Branch at 433-6709/6864.

c. To prepare the steel wool silver recovery unit for transportation, flush the unit of all photographic fixer, carefully capturing the fixer to pour into the replacement unit for reprocessing. Fill the unit to be disposed of with water to eliminate the possibility of a fire occurring via oxidation.

d. Prepare a DD Form 1348-1 for turn-in and send a completed, signed copy to BCE Environmental Branch, N622, Building 585.

N. GAS CYLINDERS

1. If stamped "U.S. Government," turn-in to FISC Norfolk; call Mr. Peterson at 444-3914 or 444-4532, for turn-in guidance.

2. If the gas cylinders are from a contractor, return to the contractor.

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3. If the contractor cannot be located, return the cylinder to the manufacturer. Many times the manufacturer will pick up the cylinder free of charge to refurbish for future use. Before calling the manufacturer, be sure to obtain all identifying marks on the cylinder, such as:

- a. What material the cylinder contains
- b. Manufacturer's name, address and phone number
- c. Department of Transportation (DOT) number
- d. Serial number
- e. Service pressure
- f. Last hydrostatic test date
- g. Any and all other numbers or identifying marks.

4. If no manufacturer is identified on the cylinder, call Defense General Supply Center (DGSC) in Richmond, Virginia with all the above information. They may be able to identify the manufacturer by the numbers and other identifying marks on the cylinder. POC at DGSC is Mr. Dean Crawford, DSN: 695-3230.

5. If the manufacturer does not want the cylinder, ask them to write a letter, on their letterhead, to Commanding Officer, Fleet Combat Training Center, Atlantic, stating that they donate the cylinder to the U.S. Government. When this letter is received, the cylinder can be turned in to FISC (see number 1.)

Address: Commanding Officer
Fleet Combat Training Center, Atlantic
(N622)
1912 Regulus Avenue, Building 585
Virginia Beach, Virginia 23461-2098

6. If the gas cylinders were purchased in a foreign country, call Base Civil Engineer, Environmental Branch at 433-6709 for guidance.

7. Cylinders containing halon and Ozone Depleting Substance (ODS), such as freon, or chlorofluorocarbons (CFCs), have specific instructions for procurement and turn in. Please call Base Civil Engineer, Environmental Branch at 433-6709 for specific guidance.

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8. Empty propane cylinders shall be turned-in to the base HW 90 day AA.

O. MEDICAL (INFECTIOUS) WASTE: Contact the base Branch Medical Clinic at 677-7203 for guidance on packaging and disposal of medical wastes.

P. APPLIANCES

1. Metal appliances, such as washers and dryers may be turned in to DRMO Norfolk (Camp Allen) Metals Yard. A DD Form 1348-1 is required for turn-in; call 444-5600 for appointment.

2. Air conditioning units, refrigerators, freezers and any other equipment that once held freon must be certified freon free before turn-in to DRMO. PWC Norfolk Virginia Beach Site will evacuate freon from all equipment on a reimbursable basis. To arrange for freon evacuation, if you already have an established job order number with PWC, place a service call to BCE at 433-6621. After the equipment is certified freon free call DRMO for an appointment, 445-1312.

Q. LOW LEVEL RADIOACTIVE EQUIPMENT

1. Computer equipment, such as monitors, cathode ray tubes and electronic boards, require certification on the DD Form 1348-1 that they do not contain radioactive material to be turned in to DRMO.

2. The department turning in the equipment should complete and sign the DD Form 1348-1. To sign the certification you should find out how much radiation is in the equipment. There are two ways to obtain this information. The first way is to look for this information in the technical manuals for the equipment. The second way is to call the equipment manufacturer, tell them the model and serial number, and get the answer from them.

3. The department head of the department turning in the equipment should sign the certification on the DD Form 1348-1.

4. Turn in the equipment to base supply with the signed DD Form 1348-1. For additional guidance contact supply at 433-6791.

5. If the equipment does contain low level radioactivity then the owner/holder of the item needs to contact the Radiological Affairs Support Office (RASO) at the Naval

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Weapons Station in Yorktown, VA at DSN 953-4692 or commercial (804) 887-4692. Callers will need to provide the isotope in question, its level of activity and its form, and the number of items to be disposed.

R. SELF-LUMINESCENT EXIT SIGNS

1. Expired self-luminescent signs are low level radioactive waste. They are not HW, nor should they be labeled or stored as such. They **do contain vials filled with Hydrogen-3, creating a POTENTIAL HAZARD FOR INHALATION OF FUMES IF THE VIALS SHOULD BREAK.**

2. Activities collecting expired signs should follow this procedure:

a. Carefully place the signs in a container (e.g., plastic bag, cardboard box, or drum, etc.);

b. Mark the bag/box/drum so that the contents are easily identified without having to re-open the container unnecessarily;

c. Place the container in a location that does not experience much traffic, and

d. Generate an official request to Radiological Affairs Support Office (RASO) for disposal assistance. The request should identify the material (i.e., self-luminescent exit signs), include any other identifying details noted upon examination of the signs (manufacturer name, sign type/style/number, how many curies, etc.), and specify the quantity of signs requiring disposal. Requests should be addressed to: Officer in Charge, Naval Sea Systems Command Detachment, Radiological Affairs Support Office, P.O. Drawer 260, Yorktown, VA 23691-0260, Attn: Ms. Laurie Miller.

3. Pick-up and disposal of the signs is coordinated and funded by RASO. For current details on disposal and assistance for specific CONUS and OCONUS locales, Ms. Miller can be reached by phone at commercial (804) 887-4692/DSN 953-4692, or fax at (804) 887-3235.

S. EMPTY METAL CONTAINERS

1. Empty 55 gallon drums must not be placed in the metal only dumpster. Empty, smaller metal containers may be placed in the metal only dumpster. All liquid that can be removed, must be removed to prevent contamination of the dumpster.

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2. FCTCLANT MWR Recycling may be able to accept empty 55 gallon drums. Call base recycling at 433-6264/6265/6102 for guidance.

3. COMNAVBASE Norfolk Metals Yard, located in the Q-50 area accepts empty 55 gallon drums, as long as they are completely empty. Drums at this facility are crushed and recycled or given to commands to use for HW storage. The generator is responsible for transporting the drums to the Metals Yard.

T. CONSTRUCTION DEBRIS

1. Building materials from demolition, which are suspected of containing lead or asbestos, should be analyzed before disposal.

2. Call BCE Environmental Branch at 433-6709/6864 for guidance.

U. CD-ROM MEDIA

1. Naval Command Control and Ocean Surveillance Center ISE East Coast Division, Charleston SC 251035Z October 1995 provides a solution to the problem that many DON activities do not have the resources available to destroy CD-ROM media as required by NAVSO P-5239-26, Remanence Security Guidebook. The following sites will destroy classified and unclassified CD-ROM media at no cost to the DON. For classified CD-ROM mark inner wrapper "Special Burn" and ship to:

L322 BLDG 9838
9800 Savage Road
FT Meade, MD 20755-6000
POC: Mr. Pettis/Varn Shiffer (301) 688-6672

2. For unclassified CD-ROM, scratch the CD to render it unreadable and ship only the CD itself (no sleeves, no jewel boxes, no paper, etc.) in boxes weighing less than 50 lbs. to:

NE-SAR Systems
4200 Ashwood Road
Darlington PA 16115-9325
POC: (412) 827-8172

V. FLUORESCENT TUBES

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(1) Fluorescent tubes contain mercury and shall be handled as a hazardous waste. If you accumulate tubes for disposal you are operating a Hazardous Waste Satellite Accumulation Area.

(2) Double bag or drum tubes

(3) Label "Hazardous Waste"

(4) Follow turn-in procedures in section I of this enclosure.

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USED OIL/HW SEGREGATION

The following products shall not be mixed with or disposed with used oil:

<u>PRODUCT</u>	<u>SOURCE</u>	<u>REASON</u>
MOGAS	Fuel	HW (LFP)
Ketone Thinners	Paint thinner	HW (LFP)
Trichloroethane	Dry Cleaning solvent	HW
Alcohol	Industrial solvent	HW (LFP)
Insecticides, Rodenticide	Insect/rodent control	HW (Toxic)
Tank cleanings containing biodegradable chemical dispersants	Tank cleaning operation	Emulsified Non-oil/water cannot be separated
Other Low Flash Products e., Napthas)	Paint thinner	HW (LFP)
Engine Trap Cleanings	Galley equipment	Emulsified oil/water cannot be separated
Oil Wastes from Sanitary Systems and Plants	CHT tank waste	Sewer Health Hazard
Sludges	Tank bottoms	Not treatable due to high concentration of solids
Hazardous Used Oils (Synthetic Oils)	Transformer Lubricating oil	Illegal to blend into reclaimed fuel
Other Halogenated Hydrocarbon Compounds (i.e., solvents with chlorine and fluorine)	Solvents	HW
Phenols	Toilet, floor drain cleaner	HW (Toxic)
Hydraulic Fluid	Hydraulic systems	HW (Toxic)
AFFF	Fire Fighting	Emulsifier cannot be separated during processing

LFP - LOW FLASH POINT

Enclosure (1)
Attachment A

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ACCEPTABLE/UNACCEPTABLE PRODUCTS FOR
USED OIL TANKS

These Materials And ACCEPTABLE

1. Automotive Industry

- A. Motor Oil
- B. Automatic Transmission Oil
- C. Power Steering Fluid
- D. Diesel Fuel
- E. Gear Oil
- F. Kerosene
- * G. Mineral Spirits or Varsol

2. Aviation Industry

- A. Turbines Engine Oil
- B. Jet Fuel

3. General Industry

- A. Hydraulic Oil
- B. Gear Oil
- C. Fuel Oil (#2 #4 #6)

These Materials Are NOT ACCEPTABLE

1. Chlorinated Solvents

- A. Metal Working Fluids
- B. Degreasing Solvents
- C. Dry Cleaning Solvents
- D. Freon Contaminated Refrigeration Oils

2. Flammable Liquids

- A. Gasoline
- B. Naphtha
- C. Paint Thinner
- D. Fiberglass Resin

3. Other

- A. Transformer Oil
- B. Ammonia Contaminated
- C. Brake Fluid
- D. Bromine Contaminated Refrigeration Oil
- E. Engine Coolant

* Used oil must have a flash point (PMCC) of greater than 140F and contain less than 1000ppm total halogens. Used Oil not meeting these specifications is a hazardous waste and is subject to regulation under 40 CFR part 261-265.

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HAZARDOUS WASTE DISPOSAL FORM

DATE _____ NAME (PRINT) _____ PHONE NUMBER _____

ACTIVITY: _____ CODE _____

MATERIAL: _____

MATERIAL USE (PROCESS): _____

SOURCE: _____ FORM: _____ MINIMIZATION: _____ PROCESS: _____
CODE (P. 2) CODE (P. 3) CODE (P. 5) CODE (P. 7)

(CIRCLE ONE) FORM: LIQUID (POURS)/SOLID/GAS/SEMI-SOLID

TOTAL QUANTITY: _____ LBS/GALS

CONTAINER TYPE: ☐ STEEL DRUM ☐ PLASTIC DRUM ☐ CAN ☐ AEROSOL
☐ BOX ☐ TUBE ☐ PLASTIC BAG ☐ BOTTLE ☐ OTHER _____

NO. CONTAINERS: _____ SIZE CONTAINERS: _____

SDS: YES/NO TRACK #: _____ FED STOCK # _____

REASON FOR DISPOSAL: ☐ EXCESS HAZARDOUS MATERIAL (EHM CERT): Y/N
☐ SPILL CLEAN-UP
☐ USED IN PROCESS ABOVE CAN'T USE AGAINI CERTIFY THAT I HAVE A PROGRAM IN PLACE TO REDUCE THE VOLUME
AND TOXICITY OF WASTE GENERATED TO THE DEGREE I HAVE
DETERMINED TO BE ECONOMICALLY PRACTICABLEACTIVITY HW COORDINATOR/ALTERNATE _____
(SIGNATURE)

(FOR BCE USE ONLY) REV04/96 TURN-IN SHEET # _____

DRUM LOCATION _____ PH _____ WP# _____

DRUM # _____ DRUM WT. _____ LBS SAMPLE: REQ/NOT REQUIRED

RECEIVED BY: _____ ☐ HW ☐ IW ☐ UW STORAGE DATE: _____
(INITIALS)

PLANNED DISPOSITION:

☐ DRMO☐ PWC☐ ST. J☐ AST 462☐ PUNCTURE DRUM☐ CONSOLIDATE DRUM #☐ DLA☐ HAZMIN CENTER☐ OTHER

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SOURCE CODES

Code Waste source

CLEANING AND DEGREASING

A01 Stripping
 A02 Acid cleaning
 A03 Caustic (Alkali) cleaning
 A04 Flush rinsing
 A05 Dip rinsing
 A06 Spray rinsing
 A07 Vapor degreasing
 A08 Physical scraping and removal
 A09 Clean out process equipment
 A19 Other cleaning and degreasing

SURFACE PREPARATION AND FINISHING

A21 Painting
 A22 Electroplating
 23 Electroless plating
 4 Phosphating
 25 Heat treating
 26 Pickling
 A27 Etching
 A29 Other surface coating/preparation (Specify in Comments)

PROCESSES OTHER THAN SURFACE PREPARATION

A31 Product rinsing
 A32 Product filtering
 A33 Product distillation
 A34 Product solvent extraction
 A35 By-product processing
 A36 Spent catalyst removal
 A37 Spent process liquids removal
 A38 Tank sludge removal
 A39 Slag removal
 A40 Metal forming
 A41 Plastics forming
 A49 Other processes other than surface preparation (Specify in Comments)

PRODUCTION OR SERVICE DERIVED ONE-TIME AND INTERMITTENT PROCESSES

A51 Leak collection
 A53 Cleanup of spill residues
 A54 Oil changes

Code Waste source

A55 Filter/Battery replacement
 A56 Discontinue use of process equipment
 A57 Discarding off-spec material
 A58 Discarding out-of-date products or chemicals
 A59 Other production-derived one-time and intermittent processes
 A60 Sludge removal

REMEDIATION DERIVED WASTE

A61 Superfund Remedial Action
 A62 Superfund Emergency Response
 A63 RCRA Corrective Action at solid waste management unit
 A64 RCRA closure of hazardous waste management unit
 A65 Underground storage tank cleanup
 A69 Other remediation

POLLUTION CONTROL OR WASTE TREATMENT PROCESSES

A71 Filtering/screening
 A72 Metals recovery
 A73 Solvents recovery
 A74 Incineration/Thermal treatment
 A75 Wastewater treatment
 A76 Sludge dewatering
 A77 Stabilization
 A78 Air pollution control devices
 A79 Leachate collection
 A89 Other pollution control or waste treatment

OTHER PROCESSES

A91 Clothing and personal protective equipment
 A92 Routine cleanup wastes (e.g., floor sweepings)
 A93 Closure of management unit(s) or equipment other than by remediation specified in codes A61 - A69
 A94 Laboratory wastes
 A99 Other

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FORM CODES

Code	Waste description	Code	Waste description
LAB PACKS			
LAB PACKS - Lab packs of mixed wastes, chemicals, lab wastes		B205	Oil-water emulsion or mixture
B001	Lab packs of old chemicals only	B206	Waste oil
B002	Lab packs of debris only	B207	Concentrated aqueous solution of other organics
B003	Mixed lab packs	B208	Concentrated phenolics
B004	Lab packs containing acute hazardous wastes	B209	Organic paint, ink, lacquer, or varnish
B009	Other lab packs (Specify in Comments)	B210	Adhesives or epoxies
LIQUIDS		B211	Paint thinner or petroleum distillates
INORGANIC LIQUIDS - Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content		B212	Reactive or polymerizable organic liquid
B101	Aqueous waste with low solvents	B219	Other organic liquids (Specify in Comments)
B102	Aqueous waste with low other toxic organics	SOLIDS	
B103	Spent acid with metals	INORGANIC SOLIDS - Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable	
B104	Spent acid without metals	B301	Soil contaminated with organics
B105	Acidic aqueous waste	B302	Soil contaminated with inorganics only
B106	Caustic solution with metals but no cyanides	B303	Ash, slag, or other residue from incineration of wastes
B107	Caustic solution with metals and cyanides	B304	Other "dry" ash, slag, or thermal residue
B108	Caustic solution with cyanides but no metals	B305	"Dry" lime or metal hydroxide solids chemically "fixed"
B109	Spent caustic	B306	"Dry" lime or metal hydroxide solids not "fixed"
B110	Caustic aqueous waste	B307	Metal scale, filings, or scrap
B111	Aqueous waste with reactive sulfides	B308	Empty or crushed metal drums or containers
B112	Aqueous waste with other reactives (e.g., explosives)	B309	Batteries or battery parts, casings, cores
B113	Other aqueous waste with high dissolved solids	B310	Spent solid filters or adsorbents
B114	Other aqueous waste with low dissolved solids	B311	Asbestos solids and debris
B115	Scrubber water	B312	Metal-cyanide salts/chemicals
B116	Leachate	B313	Reactive cyanide salts/chemicals
B117	Waste liquid mercury	B314	Reactive sulfide salts/chemicals
B119	Other inorganic liquids (Specify in Comments)	B315	Other reactive salts/chemicals
ORGANIC LIQUIDS - Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content		B316	Other metal salts/chemicals
B201	Concentrated solvent-water solution	B319	Other waste inorganic solids (Specify in Comments)
B202	Halogenated (e.g., chlorinated) solvent	ORGANIC SOLIDS - Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable	
B203	Nonhalogenated solvent	B401	Halogenated pesticide solid
B204	Halogenated/nonhalogenated solvent mixture	B402	Nonhalogenated pesticide solid
		B403	Solid resins or polymerized organics
		B404	Spent carbon
		B405	Reactive organic solid
		B406	Empty fiber or plastic containers

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FORM CODES

(Continued)

Code	Waste description
B407	Other halogenated organic solids (Specify in Comments)
B409	Other nonhalogenated organic solids (Specify in Comments)

SLUDGES

INORGANIC SLUDGES - Waste that is primarily inorganic, with moderate-to-high water content and low organic content, and pumpable

B501	Lime sludge without metals
B502	Lime sludge with metals/metal hydroxide sludge
B503	Wastewater treatment sludge with toxic organics
B504	Other wastewater treatment sludge
B505	Untreated plating sludge without cyanides
B506	Untreated plating sludge with cyanides
B507	Other sludge with cyanides
B508	Sludge with reactive sulfides
B509	Sludge with other reactives
B510	Degreasing sludge with metal scale or filings
B511	Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
B512	Sediment or lagoon dragout contaminated with organics
B513	Sediment or lagoon dragout contaminated with inorganics only
B514	Drilling mud
B515	Asbestos slurry or sludge
B516	Chloride or other brine sludge
B519	Other inorganic sludges (Specify in Comments)

ORGANIC SLUDGES - Waste that is primarily organic with low-to-moderate inorganic solids content and water content, and pumpable

B601	Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
B602	Still bottoms of nonhalogenated solvents or other organic liquids
B603	Oily sludge
B604	Organic paint or ink sludge
B605	Reactive or polymerizable organics
B606	Resins, tars, or tarry sludge
B607	Biological treatment sludge

Code	Waste description
B608	Sewage or other untreated biological sludge
B609	Other organic sludges (Specify in Comments)

GASES

INORGANIC GASES - Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure

B701	Inorganic gases
------	-----------------

ORGANIC GASES - Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure

B801	Organic gases
------	---------------

ACTIVITY CODES

2nd MAR 1996
24 SEP 1996

Code Waste minimization activity

Code Waste minimization activity

RECYCLING ACTIVITY

- W01 On-site beneficial use/reuse began during 1993
- W02 Off-site beneficial use/reuse began during 1993

SOURCE REDUCTION ACTIVITY

GOOD OPERATING PRACTICES

- W11 Began to segregate types of hazardous waste to make them more amenable to recycling
- W12 Began to segregate (stopped combining) hazardous waste from non-hazardous waste (Note: for purposes of hazardous waste reporting, reduces volume of hazardous waste, but does not reduce total waste volume)
- W13 Improved maintenance scheduling, recordkeeping, or procedures
- W14 Changed production schedule to minimize equipment and feedstock changeovers
- W19 Other changes in operating practices (Specify in Comments)

INVENTORY CONTROL

- W21 Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life
- W22 Began to test outdated material—continue to use if still effective
- W23 Eliminated shelf-life requirements for stable materials
- W24 Instituted better labelling procedures
- W25 Instituted clearinghouse to exchange materials that would otherwise be discarded
- W29 Other (Specify in Comments)

SPILL AND LEAK PREVENTION

- W31 Improved storage or stacking procedures
- W32 Improved procedures for loading, unloading, and transfer operations
- W33 Installed overflow alarms or automatic shut-off valves
- W34 Installed secondary containment
- W35 Installed vapor recovery systems

- W36 Implemented inspection or monitoring program of potential spill or leak sources
- W39 Other (Specify in Comments)

RAW MATERIAL MODIFICATIONS

- W41 Increased purity of raw materials
- W42 Substituted raw materials
- W49 Other (Specify in Comments)

PROCESS MODIFICATIONS

- W51 Instituted closed-loop recycling
- W52 Modified equipment, layout, or piping
- W53 Changed process catalyst
- W54 Instituted better controls on operating conditions (flow rate, temperature, pressure, residence time)
- W55 Changed from small volume containers to bulk containers to minimize discarding of empty containers
- W58 Other (Specify in Comments)

Cleaning and Degreasing

- W59 Modified stripping/cleaning equipment
- W60 Changed to mechanical stripping/cleaning devices (from solvents or other materials)
- W61 Changed to aqueous cleaners (from solvents or other materials)
- W62 Reduced the number of solvents used, to make waste more amenable to recycling
- W63 Modified containment procedures for cleaning units
- W64 Improved draining procedures
- W65 Redesigned parts racks to reduce dragout
- W66 Modified or installed rinse systems
- W67 Improved rinse equipment design
- W68 Improved rinse equipment operation
- W71 Other (Specify in Comments)

SEP 1996

ACTIVITY CODES

(continued)

Code	Waste minimization activity	Code	Waste minimization activity
------	-----------------------------	------	-----------------------------

Surface preparation and finishing

- W72 Modified spray systems or equipment
- W73 Substituted coating materials used
- W74 Improved application techniques
- W75 Changed from spray to other system
- W78 Other (Specify in Comments)

PRODUCT MODIFICATIONS

- W81 Changed product specifications
- W82 Modified design or composition
- W83 Modified packaging
- W89 Other (Specify in Comments)

OTHER SOURCE REDUCTION ACTIVITY

Specify in Comments

24 SEP 1996

PROC_CODE

PROCESS CODE: identifies the process generating the wastestream being reported.

<u>CODE</u>	<u>DESCRIPTION</u>
AB	Mechanical Paint/Rust Removal
AW	Asbestos Waste
BA	Battery Operations
BC	Bilge/Tank Emptying
BD	Bilge/Tank Cleaning and Derusting
BO	Pest Management
BR	Building/Equipment Removal
CL	Base Closure
CP	Chemical Paint Stripping
DR	Drycleaning
EP	Paint Shop Waste
ER	Refrigeration
ES	Expired Shelf-Life and Excess Materials, Non-Ship
FC	Fluids Changeout
FD	Fueling/Defueling
FF	Firefighting Operations
FO	Forced Obsolescence
IM	Facilities Maintenance
IO	Industrial Operations/Equipment Maintenance
IR	Installation Restoration
IW	Industrial Wastewater Treatment Sludge
ME	Medical
OD	Ordnance
PF	Metal Flushing/Cleaning
PH	Photo and Reprographic
PO	Painting Operations
PW	PCB Waste
RC	RCRA Corrective Action
RD	Research & Development
SB	Ship's Boiler Cleaning
SC	Spill Clean-Up
SO	Solvent Cleaning/Degreasing
SR	Ships Decommissioning
SS	Ship's Excess Materials
SW	Ship's Used Materials
TC	Torpedo Cleaning
TR	Training
US	Underground Storage Tank (UST) Removal

24 SEP 1996

EHM RE-USE CERTIFICATION FORM

1. This material has been evaluated by the HAZMINCEN for reuse/reissue and has been determined it must be disposed.
Yes___ No___

Certification: _____
(Signature of POC for HAZMINCEN)

2. Contacted Defense Depot, Norfolk VA. (DAMNECKBASE INSTRUCTION 5090.15B enclosure (3) II. B.) Yes___ No___.
Send copy of DD-1348 transferring material to BCE, Environmental Branch, Code N622, Building 585.

3. Contacted DRMO. (DAMNECKBASEINST 5090.15B, enclosure (3) II. C.) Yes___ No___.
Send copy of DD-1348 transferring material to BCE, Environmental Branch, Code N622, Building 585.

4. I CERTIFY ALL EFFORTS HAVE BEEN MADE TO PREVENT THE NEED TO DISPOSE OF THIS EHM, INCLUDING EXTENDING SHELF LIFE AND LOCATING OTHER USERS OR USES. TO PREVENT HM FROM BECOMING EXCESS IN THE FUTURE MY COMMAND HAS REEVALUATED PURCHASING AND INVENTORY PRACTICES. THE CHANGES MADE ARE DOCUMENTED BELOW:

CERTIFICATION OF COMMAND POC FOR HAZCOM: _____
(SIGNATURE)

CERTIFICATION OF COMMAND SUPPLY OFFICER: _____
(SIGNATURE)

CERTIFICATION OF HM USER: _____
(SIGNATURE)

24 SEP 1996

DRMO
ST. JULIENS CREEK ANNEX
BLDG. 400
PORTSMOUTH, VA 23702

5 May 1995

Reply to: DRMO St. Juliens Creek -(J. Barrington 396-0137)

SUBJECT: Guidance on Turn-In of Lead Acid Batteries

TO: Generating Activity

1. Reference, Disposal Manual DoD 4160.21-M.

2. DRMO St. Juliens Creek will physically receive lead acid batteries. This includes submarine, marine, forklift and vehicular.

3. Lead acid batteries must be segregated according to the types listed above. Batteries will be accepted both DRY (without acid) and WET (with acid) in the following manner;

a. Dry batteries must be palletized and may be stacked on their sides, no more than two levels high with a nonmetallic material between stacked levels (eg cardboard or wood). Batteries must be banded to the pallet as to prevent movement. A weight limit has been established of no more than 3000 pounds per standard 48 in x 40 in pallet. (See attachment).

b. Wet batteries require the same handling as (a) above with the following exceptions; wet batteries must be stacked upright with the caps in place (if caps are missing batteries will be rejected). Nonmetallic spacers will be placed between batteries and banding must be nonmetallic strapping in order to prevent possible short circuits. NOTE: Any batteries that are leaking or have cracked cases will not be accepted. If above described batteries are discovered with any stacked loads the entire load will be rejected until problem can be corrected.


c. Batteries with cracked cases or caps missing can be turned in under the following procedures; Bring an empty 55 gal drum with removal lid and plastic liner along with your batteries. In presence of a DRMO employee you can place batteries in the drum.

d. 1348-1 must be complete (see attachment).

e. An MSDS must be attached to 1348-1.

f. OSHA or DOT labels must be on batteries or drum.

4. For addition information contact DRMO-St. Juliens at 396-0137


J. BARRINGTON
Store Manager

3mm 1348-1, JUL 91
102-LF-013-7500

PREVIOUS EDITION MAY BE USED

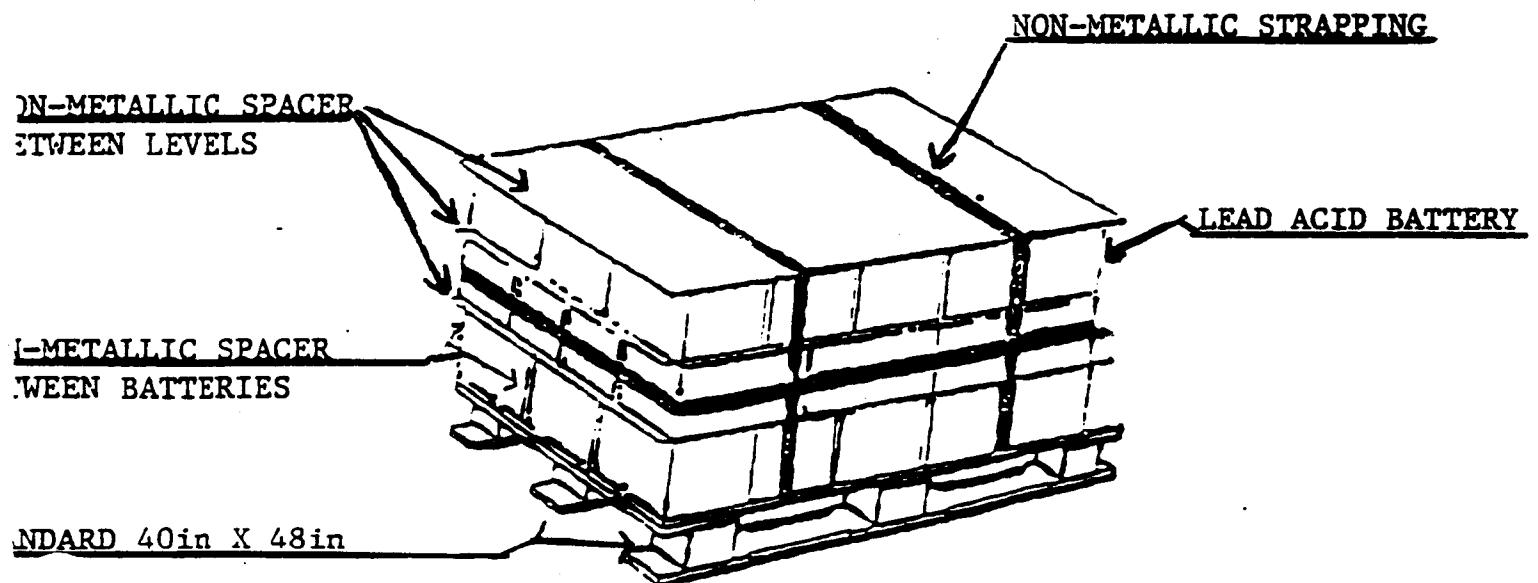
DOD SINGLE LINE ITEM RELEASE/RECEIPT DOCUMENT

- | | | |
|------|-------------------------------------|---------|
| 1. | STOCK NUMBER | 8-22 |
| 2. | UNIT OF ISSUE | 23-24 |
| 3. | QUANTITY | 25-29 |
| 4. | REQUISITION NUMBER | 30-43 |
| 5. | RECEIVED DELIVERY DATE | 62-64 |
| 6. | ADVICE | 65 & 66 |
| 7. | UNIT PRICE | 74-80 |
| 8. | SHIPPED FROM | A |
| 9. | SHIPPED TO | B |
| 10. | QUANTITY | Q |
| 11. | FREIGHT CLASSIFICATION NOMENCLATURE | U |
| 11a. | BATTERY TYPE | U |
| 12. | ITEM NOMENCLATURE | X |
| 13. | APPROVAL FOR TRANSFER (SIGNATURE) | DD |

24 SEP 1996

SAMPLE LEAD ACID BATTERY TURN-IN

1. BATTERIES MAY BE STACKED TWO LEVELS HIGH
2. NON-METALLIC SPACERS BETWEEN LEVELS
3. WEIGHT LIMIT OF 3000 POUNDS PER STANDARD 48in X 40in PALLET



24 SEP 1996

HAZARDOUS CHEMICAL WARNING LABEL			
1. CHEMICAL/COMMON NAME: LEAD-ACID BATTERY		2. HAZARD CODE: C1	
3. NSN/LSN: 6140000003400		4. PART NUMBER: LEAD-ACID BATTERY	
5. ITEM NAME: BATTERY STORAGE			
6. HAZARDS: (X all that apply)		(1) Acute (Immediate) NONE SLIGHT MODERATE SEVERE	
		(2) Chronic (Delayed)	
a. HEALTH:		X	N/P
b. CONTACT:		X	
c. FIRE:	X		
d. REACTIVITY:		X	
7. SPECIFIC HAZARDS & PRECAUTIONS: (Including Target Organ Effects) WARNING! TARGET ORGANS: EYES, SKIN, LUNG, CNS. ACUTE- IF BATTERY BROKEN: LEAD MAY CAUSE CRAMPING & FATIGUE. ELECTROLYTE MAY CAUSE EYE, SKIN & RESPIRATORY TRACT IRRITATION, BURNS. CHRONIC- ANEMIA, KIDNEY & CNS DAMAGE, EROSION OF TOOTH ENAMEL. STORE IN COOL, WELL VENTILATED AREA. PICK UP SPILL WITH SAND/NEUTRALIZE WITH SODA ASH. PLACE IN A DRUM. DO NOT FLUSH TO SEWER. FIRST AID- IF BATTERY LEAKING: OBTAIN MEDICAL ATTENTION IN ALL CASES OF EXPOSURE. EYES/SKIN: FLUSH WITH WATER FOR 15 MINUTES. KEEP EYELIDS OPEN. INHALATION: MOVE TO FRESH AIR. INGESTION: DO NOT INDUCE VOMITING. CALL PHYSICIAN IMMEDIATELY. IF CONSCIOUS, DRINK LARGE (See MSDS for further information)			
8. PROTECT: (X all that apply) Y EYES Y SKIN RESPIRATORY			
9. CONTACT			
a. COMPANY NAME: EXIDE CORP			
b. ADDRESS			
Street : 645 PENN STREET			
P.O. Box :			
City: READING (FORMALLY IN HORSHAM)			
State: PA Zip Code: 19612-4145 Country: US			
c. EMERGENCY TELEPHONE NUMBER: 215-378-0500/800-424-9300 (CHEMTREC)			
10. PROCUREMENT YEAR FOR HAZARDOUS CHEMICAL:			

24 SEP 1996

HAZARDOUS WASTE COORDINATOR TRAINING RECORD

To appoint a command Hazardous Waste Coordinator and alternates complete attachments A and B and forward to FCTCLANT Base Civil Engineer, N622. The HWC and alternates are to be appointed annually by 30 January of each new calendar year. The appointment shall be made in writing and signed by the CO or his representative.

DAMNECKBASEINST 5090.13B
24 SEP 1996

HAZWASTE APPOINTMENT LETTER

Date:

From:

To: Base Civil Engineer, N622

Subj: HAZARDOUS WASTE COORDINATOR (HWC)/HWC ALTERNATE)
APPOINTMENTS

Encl: (1) HWC Training Record

1. In accordance with DAMNECKBASEINST 5090.15B enclosure (1) is submitted for the following personnel assigned HWC duties for calendar year 199_. These personnel will attend semi-annual training and will be responsible for all HWC duties described in DAMNECKBASEINST 5090.15B and DAMNECKBASEINST 5090.14B. HWC training will be announced in the base POD.

HWC: _____ Phone: _____
Fax: _____

HWC Alt: _____ Phone: _____
Fax: _____

2. This command/department has complied with OPNAVINST 4110.2 and has an updated HAZCOM Program, updated authorized use list and an MSDS for all hazardous materials used.

3. I understand that the HWC will be certifying for me with each HW turn-in the following statement:

"I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable".

(Department Head Signature,
with CO's signature authority
or Commanding Officer)

Enclosure (2)
Attachment A

DAMNECKBASEINST 5090.15
24 SEP 1996

HAZARDOUS WASTE COORDINATOR (HWC) TRAINING RECORD

HWC NAME: _____ HWC JOB TITLE: _____

HWC COMMAND/CODE: _____

JOB DESCRIPTION RELATED TO HAZARDOUS WASTE HANDLING:

AS HWC/ALTERNATE DUTIES MAY INCLUDE TRANSPORTING HAZARDOUS WASTE (HW) TO THE BCE HW COMPOUND. AT THE BCE COMPOUND THE HWC WILL PERFORM HANDLING FUNCTIONS SUCH AS MOVING DRUMS, POURING HW FROM CONTAINERS INTO DRUMS, CLEAN-UP OF SPILLS INCIDENTAL TO MOVING OR HANDLING THEIR WASTE AND LABELING DRUMS. THE HWC WILL COMPLETE THE HW TURN-IN FORM FOR ALL WASTES TURNED IN BY THEIR COMMAND. THIS INCLUDES IDENTIFYING THE WASTE, OBTAINING A MATERIAL SAFETY DATA SHEET, IDENTIFYING THE PROCESS THAT GENERATED THE WASTE AND IDENTIFYING HW MINIMIZATION AND SOURCE REDUCTION PROCEDURES USED BY THEIR COMMAND. THE HWC WILL MAINTAIN AND BE RESPONSIBLE FOR SUBMITTING TO BCE ALL NECESSARY RECORDS FOR HW REPORTING TO EPA. THE HWC WILL ALSO PERFORM THE DUTIES OUTLINED IN FCTCLANT INSTRUCTION 5090.15. THE HWC IS REQUIRED TO BE FAMILIAR WITH FCTCLANT INSTRUCTIONS 5090.14 "OIL AND HAZARDOUS SUBSTANCE SPILL CONTINGENCY PLAN" AND 5090.15 "HAZARDOUS WASTE (HW) MANAGEMENT PLAN." THE HWC/ALT WILL BE AT LEAST A CPO OR PO1 OR CIVILIAN EQUIVALENT.

ADD ADDITIONAL DUTIES OR QUALIFICATIONS RELATED TO HW OR HAZARDOUS MATERIAL HANDLING EXPECTED AT YOUR COMMAND:

TRAINING REQUIRED:

THE HWC IS REQUIRED TO ATTEND BASE HWC TRAINING SEMI-ANNUALLY AND IS EXPECTED TO COMPLETE AT LEAST 2 HOURS OF HWC TRAINING EACH YEAR.

COMPLETED HWC TRAINING:

DATE: _____	# HOURS: _____	SIGNATURE: _____
DATE: _____	# HOURS: _____	SIGNATURE: _____
DATE: _____	# HOURS: _____	SIGNATURE: _____
DATE: _____	# HOURS: _____	SIGNATURE: _____

OTHER HW/HM HANDLING/HW/HM/SPILL RESPONSE TRAINING: (SHOW COURSE TITLE, COURSE DATES, COURSE LOCATION AND TRAINING SOURCE):

24 SEP 1996

POLLUTION PREVENTION

HAZARDOUS MATERIALS REUTILIZATION AND HAZARDOUS WASTE MINIMIZATION



24 SEP 1996

POLLUTION PREVENTION

HAZARDOUS MATERIALS REUTILIZATION &
HAZARDOUS WASTE MINIMIZATION

All Fleet Combat Training Center, Atlantic, tenants and departments shall implement procedures to minimize WASTE, especially HAZARDOUS WASTE and shall eliminate disposal of Excess Hazardous Material (EHM) as HW.

The primary objective is to order only what you need and USE what you order so that there is no EHM to pay for disposal.

The LAST RESORT is to turn in EHM to the Base HW 90 Day Accumulation Area (AA) for HW disposal.

I. DAM NECK BASE HAZARDOUS WASTE GENERATORS

A. CALENDAR YEAR 94/95 GENERATION

1. The table below shows who has been generating hazardous waste on the base and the approximate quantities during calendar years 1994/1995. Reference (d) to this instruction requires generators to reduce waste streams, especially hazardous waste which is escalating in disposal costs due to treatment standards and bans from landfills.

HAZARDOUS WASTE MINIMIZATION BY TENANT

MATERIAL	CY94	CY95
DENTAL:		
FIXER SOLN	120	350
FORMALDEHYDE	1	0
FLOOR POLISH	220	0
MERCURY DECONTAMINATE	0	30
DENTAL TOTAL	341	380
N5:		
AEROSOLS	9	0
SAFETY KLEEN SOLVENT	585	302
PAINT, OIL	200	0
UNKNOWN	80	0
CLEANER, ALKALINE	0	15
ETHYLENE-GLYCOL	0	6390
GASOLINE	0	40
N5 TOTAL	874	6747

DAMNECKBASEINST 5090.15B

24 SEP 1996

N3:		
COATING, POLYURETHANE	40	0
GASOLINE	60	0
NINHYDRIN SPRAY	12	0
REAGENTS	1	0
SULFURIC ACID	0	170
RAGS, GASOLINE	0	50
PAINT, OIL	0	25
SPILL DEBRIS, OIL	0	25
N3 TOTAL	113	270
FCDSSA:		
PAINT, OIL	0	140
FCDSSA TOTAL	0	140
N4:		
ACID, SOLID CHROMIC	45	0
BATTERIES, MERCURY	20	0
DISPERSANT	5	0
GAS PURIFYING AGENT	2	0
PAINT, OIL	820	570
SOLDERING FLUX	2	0
1,1,1-TRICHLOROETHANE	40	0
TRICHLOROTRIFLUOROETHANE	40	0
UNKNOWN	40	0
SOLVENT	0	40
N4 TOTAL	1014	610
N6:		
AMMONIUM HYDROXIDE	0	0
CITRIC ACID CLEANER	3	0
CONCRETE REPAIR	3360	0
SPILL DEBRIS, FUEL OIL #2	7	0
ACID LAB PACK	240	0
FLAMMABLE LAB PACK	100	0
ONCRETE SUPER NON-SKID	10	0
PAINT, OIL	100	1715
THINNER/SOLVENT	340	40
HYDROCHLORIC ACID	15	60
AEROSOL ADHESIVE	0	122
BATTERIES, LEAD ACID	0	3325
FREON	0	350
REFRIGERATION OIL	0	1240
PLASTI-DIP	0	4
SEALING COMPOUNDS	0	3
UNKNOWN	0	450
N6 TOTAL	4176	7309

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N7:		
ACID	3	1
AEROSOLS	2	1
SOLDERING FLUX	9	0
ADHESIVE	4	4
SILVER BRSH PLTE SOLN	1	0
CLEANERS, SOLVENTS	67	215
PAINTS, COATINGS, SEALERS	1095	197
INSULATING COMPOUND	4	0
DISPERSANT, TONER	60	0
LEAD SOLDER	2	0
COPPER SOLUTION	1	0
THINNERS, STRIPPERS	532	0
BATTERIES	4	480
BISMUTH	4	0
LUBRICANTS, HYDRAULIC OIL	4	1780
MERCURY SWITCHES	1	0
ZINC CHROMATE PUTTY	5	0
OILY RAGS	0	1166
UNKNOWN	0	55
INSTANT BULK	0	40
N7 TOTAL	1720	1133
NETPMSA:		
SEALER	70	0
ISOPROPYL ALCOHOL	0	1
BATTERY	0	2
INK	0	2
POLISH	0	10
NETPMSA TOTAL	70	15
NEX:		
UNKNOWN	0	470
NEX TOTAL	0	470
NOPF:		
ETHYLENE-GLYCOL	1010	0
FUEL OIL #2	1248	0
MOGUL	210	0
RESIN FLUX	5	0
SOLVENTS	3	0
ISOPROPYL ALCOHOL	0	49
PAINT	0	90
NOPF TOTAL	2476	139

DAMNECKBASEINST 5090.15B

24 SEP 1996

PWC:		
SAFETY KLEEN SOLVENT	1854	1286
BATTERIES	0	600
PAINT	4006	210
ETHYLENE-GLYCOL	439	1140
OILY RAGS	0	800
GASOLINE	708	0
SPILL DEBRIS	2390	600
FUEL OIL #2	100	580
UNKNOWN	540	0
ACIDS	14	520
ADHESIVES	50	0
CLEANERS, SOLVENTS	826	150
DE-ICING FLUID	8	0
HYDROXIDE LIQUID MEMBRANE	500	0
REAGENTS	18	0
STRYCHNINE	12	0
DEPOSIT INHIBITOR	0	150
TRANSMISSION FLUID	0	200
PROPANE CYLINDERS	0	3
SODIUM HYDROSULFITE	0	250
PWC TOTAL	11465	6489
SPECWAR:		
SAFETY KLEEN SOLVENT	7887	5997
BATTERIES	50	2160
ACID	0	750
AEROSOLS	125	120
GASOLINE	4925	2420
RUBBER BULLET TRAP DEBRIS	11788	12685
HEPA FILTERS	740	2590
SOLVENTS	990	840
SILVER RECOVERY	170	0
FUEL OIL #2	1340	0
PAINT	480	2081
ACETONE	45	0
CEMENT, ROOFING	62	0
BULLET TRAP CANISTER	0	386
CALCIUM HYPOCHLORITE	0	19
ETHYLENE-GLYCOL	0	940
GASOLINE RAGS	0	315
OIL SEPARATOR SLUDGE	0	3940
SOLVENT SPILL DEBRIS	0	160
SPECWAR TOTAL	28602	33459
USMC RIFLE RANGE:		
SAFETY KLEEN SOLVENT	2236	1991
USMC RIFLE RANGE TOTAL	2236	1991

24 SEP 1996

VC-6:		
GASOLINE	0	100
BATTERIES	40	0
JP-5	173	0
THINNER	7	0
SYNTHETIC OIL	0	140
VC-6 TOTAL	220	240
BASE TOTAL		

NOTES: a. Dental has eliminated fixer solution and mercury decontaminate as HW streams due to improved procedures.

b. Safety Kleen solvent volume will decrease basewide in 1996 due to better characterization and installation of filters.

c. Ethylene-Glycol increased as a HW steam in 1995 due to better characterization, but should decrease basewide in 1996 due to purchase of reclaiming units.

d. A lot of EHM paint was discarded in 1995 due to improper storage. The HAZMINCEN should eliminate the need for this type of disposal.

2. Activities shall be aware of the amount of HW they are generating and strive to implement policies to reduce the volume generated such as:

- (a) Complete cooperation with HAZCOMM and HAZMINCEN procedures
- (b) Prohibiting hoarding/hiding of hazardous materials,
- (c) Funding pollution prevention projects,
- (d) Obtaining small quantities of paint from FISC Norfolk Paint Mart (para II A (3))
- (e) Never accepting material without an MSDS
- (f) Refusing damaged/bad material
- (g) Prohibiting improper storage of material for use.

II. HAZARDOUS MATERIAL USE MANAGEMENT

A. PROCUREMENT MANAGEMENT

24 SEP 1996

1. Reduce HW generation from EHM through reduction in HM procurement. Buy only the amount of HM needed for a particular job.

2. Designate the minimum amount of HM on the FCTCLANT HM authorized use list.

3. For paint, the Fleet and Industrial Supply Center (FISC) Norfolk Paint Mart, located in Building X-218, sells any amount of paint and paint related materials in small units of issue, such as 1 quart or 1 pint. Required documents are a completed DD Form 1348-1A or NAVSUP Form 1250 and a FISC Serve Mart card. To ease shopping at Serve Mart and Paint Mart, their program and entire inventory can be copied onto two computer disks. This service is provided for free, but the command must supply the disks. Call FISC Norfolk Servemart (Bldg. W-135) at 444-2263 for more information.

B. INVENTORY CONTROL MANAGEMENT

1. Review inventory, rotate stock and use materials with shortest expiration date first.

2. Keep HM segregated from non-hazardous material.

3. DO NOT CROSS CONTAMINATE WASTE STREAMS!

Uncontaminated petroleum products are not HW, but they become regulated if mixed with HW. Petroleum-based products contaminated with HW's must be labeled as HW. Waste oil tanks must not receive hazardous materials/wastes. Each generator will ensure that appropriate containers are used for HW or used oil. Used oil consists of petroleum products including lubricating oils, diesel fuels (uncontaminated), jet fuels and other petroleum-based products. Synthetic products should be kept in separate drums.

4. Never accept material without an MSDS.

5. Inspect all new material for useability, good condition, useful shelf life, no dents, cracks or holes in containers upon receipt.

6. In accordance with OPNAVINST 4110.2 unlabeled, incompletely labeled, improperly labeled HM, or HM without an accompanying MSDS received from manufacturers, vendors, or

distributors **SHALL NOT BE ACCEPTED.**

C. HM SHELF LIFE MANAGEMENT

24 SEP 1996

1. The shelf life of Type I material cannot be extended. This material is used for specific military purposes and once it has expired, it can no longer be used for that purpose. Type I materials have an alphabetic designation listed on the item immediately after the National Stock Number (NSN).

2. Type II materials may or may not have extendable shelf lives. Type II materials have a numeric designation listed on the item immediately following the NSN. For information regarding extension of these materials call Mr. Jim Merritt, Defense Depot, Norfolk, Virginia (DDNV) 444-1096.

3. Defense General Supply Center (DGSC) in Richmond, VA has a Quality Status List (QSL) which allows certain Type II Federal Stock Class (FSC) material to be extended. Included on the QSL is FSCs: 6635, 6750, 6810, 6840, 6850, 9110, 9150, and 9160. To obtain a copy of the microfiche that show the shelf life extensions call Jim Lewis at DSN 695-4140 or commercial 1-804-279-4140.

D. HM SUBSTITUTION

Reduce HW generated by reducing the use of HM by HM substitution. Review work practices to determine if non-HM or a material with less hazardous constituents may be substituted. Technical manual guidance must, however, be the prevailing factor in any decision to use substitute materials.

E. SPILL PREVENTION, PREVENTIVE MAINTENANCE AND PROCESS IMPROVEMENT MANAGEMENT

1. Store containers in such a way as to allow for visual inspection for corrosion or leaks; store containers to minimize the chance of tipping, puncturing or breaking; and keep aisles clear of obstruction.

2. Train all personnel for: HAZCOM program plan requirement; the safe and proper operation of equipment (minimize waste due to operator or procedural errors in the use/application of HM); procedures for detecting release of HM/HW; procedures for HM/HW control and disposal; procedures for submitting ideas for job process improvements that eliminate or reduce HW generation.

3. Procedures for reporting/containing a HM/HW spill are in reference (a). Training shall be documented and retained for three years and made available for inspection upon request.

4. Develop procedures to reuse HM in a process whenever possible to decrease demand for HM and decrease volume of HW generated.

5. Assure compliance with preventive maintenance programs to help prevent waste releases due to equipment failure.

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III. EXCESS HAZARDOUS MATERIAL REUTILIZATION - Reutilization is the next priority in the management of EHM to achieve the minimization of HW disposal. Specific reutilization methods are discussed below:

A. HAZMINCEN - All unused EHM, whether in open containers or not, must be taken to the base HAZMINCEN for evaluation for reissue. The generator is responsible to obtain a signed EHM certificate to dispose of the EHM at the base HW 90 day AA.

B. DEFENSE DEPOT, NORFOLK VA. (DDNV) - If the HAZMINCEN cannot accept the EHM, there is a possibility it can be returned to DDNV for reissue. The requirements for DDNV to accept material are:

1. The material must be in Class A condition. It must be new material with NO scratches, dents, or rust on the container. Material must have original labels and be in the same unit of issue as originally issued. (For example: if the material was issued as 12 items to a box, you must have 12 items to a box to turn it back in to DDNV).

2. The material must have at least six months of shelf life remaining. **Extend shelf life if at all possible, before returning to DDNV.** Type II items are extendable, Type I items are not. For shelf life extension assistance, contact Mr. Jim Merritt, DDNV Norfolk, at 444-1096.

3. The material must be accompanied by a completed DD Form 1348-1.

4. DDNV POC is Mr. William Alexander at 444-1167.

C. DEFENSE REUTILIZATION AND MARKETING OFFICE (DRMO), NORFOLK.- DRMO Norfolk can accept any material for reuse that DDNV or FISC Norfolk cannot accept. Call DRMO Norfolk at 445-4450 to ensure acceptance and coordinate turn-in of material. Turn in requirements are as follows:

1. Items may be expired, but containers should be in good condition--not too rusted or dented.

2. If kits are being turned in, all parts of the kit must be included.

3. Paperwork required:

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(a) Completed DD Form 1348-1, including the Department of Transportation (DOT) Certification Statement in box DD: "The HM is packaged in containers as prescribed in DOT HM Regulations 49 CFR parts 170-189."

(b) MSDS

(c) OSHA Hazardous Chemical Warning Label. Only adhesive type labels are acceptable.

4. Examples of materials that DRMO Norfolk will accept:

(a) all flammable materials (solvents, paints, etc.);

(b) all photographic chemicals;

(c) corrosives;

(d) used synthetic oils and used synthetic hydraulic fluids;

(e) mercuric nitrate;

(f) cleaning compounds;

(g) greases.

5. If your EHM is rejected by DRMO Norfolk, request a "917 rejection form." This form provides specific information explaining why your EHM was rejected. After making the necessary corrections, return the EHM to DRMO Norfolk for reutilization.

IV. RECYCLING AND RECLAIMING

A.. ITEMS THAT SHALL BE RECYCLED OR RECLAIMED

1. The following items are to be recycled or reclaimed by generators:

a. Used oil - which includes non-contaminated JP-5, diesel fuels #2, #4, #6, gear oil, hydraulic oil, motor oil, automatic transmission oil and power steering fluid.

b. Freons

c. Ethylene-Glycol (Antifreeze)

d. Photographic fixer (silver reclaimed)

e. Lead-acid batteries

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- f. Empty paint cans
- g. Used oil filters
- h. All recyclable listed in reference (h)

2. Consult enclosure (1) of this instruction or BCE at 3-6709/3-6864 for recycling and reclaiming guidance. Records must be maintained by the HWC on the quantities of these materials recycled/reclaimed.

B. STANDARD OPERATING PROCEDURE FOR SILVER RECOVERY UNITS

1. Silver recovery units are used for two purposes:

- a. To recover silver from silver-laden wastes for reuse as a valuable commodity, and;
- b. To provide treatment of silver-laden wastes in order to meet sanitary sewer system permit requirements. The purpose of this Standard Operating Procedure is to provide information on silver recovery including equipment, operating and maintenance procedures and recycling.

2. EQUIPMENT

- a. Defense Reutilization and Marketing Service (DRMS), Columbus, Ohio provides silver recovery units and replacement silver recovery cartridges, for the Norfolk area, free of charge. DRMS provides this service as part of their Precious Metals Programs.
- b. Mr. Dean Prosser at DRMS, Columbus is the Norfolk area point of contact for silver recovery equipment. Mr. Prosser can be reached at DSN 850-2114. He is available to recommend what type and size of recovery unit is needed for your application. He is also the source for replacement cartridges for passive cell silver recovery units.
- c. Steel wool type silver recovery units are currently being phased out because they exceed the Environmental Protection Agency's limit for silver and must be manifested and transported as HW. If you are currently using a steel wool silver recovery unit, please call DRMS, and have the unit replaced with a passive cell or electrolytic type unit, as soon as possible.

3. OPERATIONS

- a. Ensure that only photographic fixer is introduced into the silver recovery unit. **Developer** is not to be treated through the unit. Fixer contains silver, but developer

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does not. Developer contains chemical constituents which are damaging to the silver recovery unit. In addition, developer is corrosive to pipes. If developer is used in a wet system (with water), it may be disposed untreated down the sanitary sewer (sink). If a waterless system is used, the developer may be disposed of down the sanitary sewer, provided it is flushed with large amounts of water.

b. Inspect the tubing on the unit for debris and heavy discoloration. Replace tubing when solids buildup is observed on the walls of the tubing.

c. Check for leaks in the tubing and around tubing joints. Replace tubing as needed due to leakage.

d. Testing

(1) Conduct weekly testing of the unit discharge going into the sanitary sewer (sink) for silver content. This can be done by utilizing a silver test kit available from BCE Environmental Branch at 433-6709/6864:

(2) Follow the test kit instructions for the one hour test. The one hour test will provide results at the detection level needed to determine compliance with sanitary sewer permit limits.

(3) Record the results of all silver tests and include the time and date of the test. You can establish a new log book or use an existing one.

(4) If the silver test kit result is less than or equal to (\leq) 6 ppm silver, then continue using the unit and monitor in the silver once a week.

(5) If the silver test kit result is greater than ($>$) 6 ppm, it exceeds the limit for silver to the sanitary sewer and must be replaced. If the unit is a passive cell silver recovery unit, replace the cartridge, following the instructions in the owner's manual or below in the MAINTENANCE paragraph. If a steel wool unit is being used, replace the whole unit, carefully following the directions below in the RECYCLING paragraph. If an electrolytic silver recovery unit is in use, collect the silver and follow the instructions in the RECYCLING section of this instruction.

4. MAINTENANCE

a. Spent Cartridge Removal: Passive silver
Cartridges

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(1) For tandem units (two cartridge systems):

Remove the primary chamber cartridge (the cartridge that accepts the initial flow of fixer) and the secondary chamber cartridge. Rotate the secondary chamber cartridge in the secondary chamber.

(2) Drain the removed primary cartridge of fluid. Collect the fluid in a container and pour it back into the silver recovery unit for reprocessing once the unit has been put back together. Rinse the removed primary cartridge well with tap water, swishing the water around to remove any solids in the cartridge. Collect all rinse water and pour it back into the silver recovery unit for reprocessing once the unit has been put back together.

(3) Replacement cartridges can be ordered free of charge from DRMS, Columbus (Mr. Prosser DSN 850-2114). There is approximately a two week turn around time once replacement cartridges are ordered from DRMS, Columbus.

(4) For single cartridge units: Follow the instructions in b and c above, or refer to your owner's manual.

b. Electrolytic silver recovery units: Collect the silver according to the manufacturer's instructions.

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HAZARDOUS WASTE SATELLITE ACCUMULATION AREA MANAGEMENT

I. BASE HAZARDOUS WASTE SATELLITE ACCUMULATION AREAS (HWSAAs)

The table below shows all the current HWSAAs. If your command is listed below, the HWC is required to manage the HWSAA in accordance with this enclosure. If your command is not listed below and you believe you are accumulating a HW at your site, contact the BCE Environmental Branch at 433-6709/6864.

HWSAA Site	Hazardous Waste Stream	Drum Size
N7 Bldg 127 Rm# GH 151A	CLEANING RAGS	20 gal
N7 Bldg 127 Rm# TH 47	CLEANING RAGS	20 gal
N7 Bldg 127 Rm# TH 10	CLEANING RAGS	20 gal
VC-6	SYNTHETIC OIL	55 gal
PWC PAINT SHOP Bldg 526	OIL PAINT THINNER	30 gal 20 gal
PWC PESTICIDE SHOP Bldg 613	AEROSOL CANS	55 gal
PWC TRANS SHOP Bldg 527	AEROSOL CANS ETHYLENE GLYCOL SPILL DEBRIS	20 gal 55 gal 55 gal
N522 Bldg 462 AUTO HOBBY SHOP	ETHYLENE-GLYCOL CLEANING RAGS	55 gal 55 gal
SPECWAR Bldg 311	LEAD DEBRIS	55 gal
SPECWAR FACILITIES Bldg 336	OIL PAINT THINNER AEROSOLS	55 gal 30 gal 55 gal
SPECWAR SUPPLY Bldg 355 RM#132	BATTERIES	30 gal
SPECWAR WEAPONS Bldg 355 TRUCK SHOP	ETHYLENE-GLYCOL AEROSOL CANS OIL CLEANING RAGS	55 gal 55 gal 30 gal
SPECWAR Bldg 354	AEROSOL CANS	55 gal

II. HWSAA MANAGEMENT

A. Only a total of 55 gallons of HW can be accumulated or one quart of an acutely HW.

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B. Containers are located at the point of HW generation. If outside, containers are stored in a spill containment locker.

C. Containers shall be handled correctly to prevent releases.

D. Containers are not to be filled to capacity, only 95% capacity, six inches from top of a 55 gallon drum.

E. Containers are under the control of the operator of the process generating the waste. Control measures must be in place to prevent unauthorized use of the HW drums, i.e., mixing wastes.

F. No other materials are stored in the HWSAA.

G. Inspect the HWSAA quarterly, using attachments A and B. Complete attachment A and fax to BCE Environmental Branch at 433-6469.

H. If 55 gallons is exceeded the containers must be marked with the date the excess amount was added and all containers transferred to the base HW 90 Day AA within three days.

I. All containers are labeled "HAZARDOUS WASTE" and contents.

J. Containers are in good condition (no dents, no rust, no holes.)

K. Containers are always kept closed except to add waste or when in use. Closed means ring on and bolted tight.

L. Containers are compatible with the waste.

M. A "NO SMOKING WITHIN 50 FEET" sign is posted at the HWSAA.

N. A "DANGER, UNAUTHORIZED PERSONNEL KEEP OUT" sign is posted at the HWSAA.

O. Attachment B guidance from the Virginia Department of Environmental Quality (DEQ), provides detailed explanation of satellite accumulation.

PECTOR

DATE

TIME

A

CODE/UNIT

CUSTODIAN

TODIAN'S PHONE NO.:

CORRECTIVE ACTION
DATE / INITIALS

VIOLATIONS NOTED	CORRECTIVE ACTION	
	DATE	INITIALS
Is SAA near the point of generation and under the control of the operator the process actually generating the waste?	Yes No	
Does total volume of all containers in HW collection area equal 55 gallons or less?	Yes No	
Are containers in good condition? (Containers should be non-leaking non-corroded.)	Yes No	
Is the HW compatible with the container in which it is stored?	Yes No	
Is the area free of any spills or container overfills (waste product on the container lid)?	Yes No	
If no, have spills/overfills been cleaned up?	Yes No	
Are containers holding HW clearly marked with the words "HAZARDOUS WASTE"?	Yes No	
Are containers kept sealed at all times except when adding wastes?	Yes No	
Are full containers moved to a designated storage area within 72 hours of becoming full?	Yes No	
Is the full date clearly visible on the container if container is full?	Yes No	
Are containers marked with the name of the specific waste contained in? (The name(s) used should identify all contents.)	Yes No	
Is a fire extinguisher available within 50 feet?	Yes No	
Are spill control equipment (absorbent material) and decontamination equipment (extra drums, mops, brooms, and buckets) available near the SAA?	Yes No	

REMARKS:

DECLARATION 5090/4 (3-95)

Enclosure (4)
Attachment A

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WHAT IS SATELLITE ACCUMULATION?

Section 6.4.E.3 of the VHWMR addresses proper satellite accumulation. The regulation is designed to allow for longer accumulation of wastes where the generation rate is so slow that a full drum may not be accumulated within 90-days from beginning accumulation, and generators would have to dispose of partially full drums. The regulation specifies that a generator may accumulate waste "in containers at or near any point of generation where wastes initially accumulate, which is under control of the operator of the process generating the waste." Furthermore, the containers must be marked with the words "Hazardous Waste" or other words which identify the waste, kept closed, in good condition, and compatible with the waste. Up to 55-gallons of each separate waste stream may be accumulated at a satellite area. However, the waste streams should be distinguishable either by waste code, specific TSD facility handling requirements, or other criteria which justifies handling in separate containers (e.g., red paint and green paint which are compatible, bearing the same waste codes, and subject to the same LDR treatment standards would not be justifiable as separate waste streams). The regulations do not allow for a "satellite to satellite" transfer (ref: "where wastes initially accumulate"). Therefore, hazardous waste (i.e., any spent material or solid waste qualifying as a hazardous waste) first accumulated in a container under satellite conditions constitutes satellite accumulation; subsequent transfer to another container would cause that container to be subject to <90-day accumulation standards. Many people also misinterpret the satellite container regulation to mean that any hazardous waste accumulation under 55-gallons is satellite, but this application is not necessarily correct. The regulation is generally interpreted to apply only to one operator of a satellite accumulation container from one waste generation process. If multiple operators contribute waste to a container from multiple points of generation, satellite conditions would not be maintained. Thus, consolidation of individual shop waste accumulations at an area away from those shops would not meet the intent and definition of satellite accumulation, and such an area should be managed as a less-than-90-day area. Satellite accumulation under one responsible operator ensures compatibility of all wastes managed in the container and "one user responsibility" for container management standards (containers are in good condition, kept closed, spills/releases prevented, correct labeling, etc.). Generators are relieved from the weekly inspection and log requirements for satellite container accumulation because of the presumption that the operator will be able to observe the container at the production process area on a daily basis and ensure that proper conditions are maintained.

WHEN DOES THE ACCUMULATION DATE BEGIN?

In accordance with VHWMR Section 6.1, anyone who generates a solid waste is required to determine if that waste is a hazardous waste. Generators are allowed to accumulate hazardous waste on-site for less than 90 days without a permit or interim status. The 90-day accumulation limit is inclusive of time allowed for analysis of the waste (i.e., the waste may only be accumulated for 90 days from the time it becomes a solid waste which is subsequently determined to be a regulated hazardous waste; otherwise, waste could be improperly accumulated indefinitely before being "determined" to be a hazardous waste). For satellite accumulation, the accumulation date begins when the container is full. The generator may also declare his solid waste to be a hazardous waste based on his knowledge of the process generating the waste or other knowledge which may be used to identify the waste (e.g., it is a known discarded commercial chemical product, or by knowledge derived from MSDS information), but the waste must still be managed within 90 days from when it becomes a solid waste. Because the operator of a satellite accumulation container must be familiar with the process generating the waste, and therefore must know the contents of the container, unknown wastes would not be expected from a satellite accumulation area.

Prepared by: Steven E. Frazier
Virginia Department of Environmental Quality
Office of Technical Assistance/Waste

11/3/93 (Rev. 7/95)

Enclosure (4)
Attachment B

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SATELLITE LOCATION:

COMMAND/DEPARTMENT _____ BLDG. # _____ RM # _____

NUMBER AND SIZE OF CONTAINERS: _____

[illegible]

CAPACITY.
***HOUSE KEEPING: (1) SECURITY (2) INCOMPATIBLES (3) DRUM ACCESS
CONTROL USE ATTACHMENT A OF ENCLOSURE (4) OF DAMNECKBASEINST 5090.15B
FOR INSPECTION GUIDANCE.

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BASE HAZARDOUS WASTE 90 DAY ACCUMULATION AREA
INSPECTION SCHEDULE

WEEKLY INSPECTIONS

Drums and containers holding hazardous waste

1. Inspect visually for drums in good condition: not leaking, corroded or deteriorated/damaged.
2. Inspect for accumulation date, hazardous waste markings, drums properly closed, specific waste name on drums.
3. Inspect for non regulated and hazardous waste stored separately.
4. Inspect drums holding ignitable and reactive wastes are located at least 50 feet from property line.
5. Inspect fire extinguishers, spill control equipment, alarm system and radio/telephone.
6. Inspect housekeeping (area should be free of trash and well organized).
7. Document weekly inspections on attachment A.

MONTHLY INSPECTIONS

Personal protective equipment

1. Inspect to ensure adequate and usable personal protective equipment, such as splash-resistant and impervious boots, gloves, suits, coveralls and chest waders, hard hats, face shields, visors and ear protection. Ensure personal protective equipment as noted on MSDS for hazardous material is available.
2. Document monthly inspection on attached.

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90 DAY ACCUMULATION AREA
INSPECTION LOG

Inspected by: _____ Date: _____ No. of Containers: _____

Signature: _____ Temp: _____ Weather Conditions: _____

Date of Reinspection: _____ Inspector: _____

HAZARDOUS WASTE CONTAINERS

Container Condition		Yes	No
	Are any Open?		
	Are any severely rusted?		
	Are any container heads bulging?		
	Are any leaking?		

If any of these questions were marked YES, comment: _____

Describe actions taken to correct situation: _____

Container Marking		Complete
	Accumulation Start Date marked on container(s)	
	Hazardous waste warning marked on container(s)	
	Contents marked on container(s)	

Accumulation Point		Yes	No
Is the accumulation point free of severe structural deterioration?			
Is adequate aisle space present between drums to allow unobstructed movement for emergency response?			

If either of these questions was marked NO, comment: _____

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EMERGENCY RESPONSE EQUIPMENT			
		Yes	No
Telephone	Is it easily accessible in case of emergency?		
	Is it in working order?		
Spill Control	Is an empty salvage drum nearby?		
	Is unused absorbent material nearby?		
	Is all personal protective equipment nearby?		
	<input type="checkbox"/> Gloves <input type="checkbox"/> Boots <input type="checkbox"/> Apron <input type="checkbox"/> Goggles <input type="checkbox"/> Respirator		
Fire Protection	Is a fire extinguisher readily accessible?		
	Is the fire extinguisher fully charged?		
	Is the fire extinguisher seal intact?		
If any of these questions were marked NO, comment: _____			
Describe actions taken to correct situation: _____			
PERSONAL PROTECTIVE EQUIPMENT			
		Yes	No
Boots, gloves, suits, hard hats, face shields etc clean and useable?			
If NO describe actions to correct: _____			
Is eyewash and shower flushed and in proper operating condition?		YES	NO

UNDERGROUND STORAGE TANK (UST) LEAK DETECTION MONITORING**I. GROUNDWATER MONITORING WELL SITES**

The table below shows the locations of groundwater monitoring wells. If your command or code is listed below you are required to conduct monthly monitoring of your tank as described below.

COMMAND	BUILDING	TANK	WELLS
NAVSPECWARDEVGRU	311	1500 GAL HEATING OIL	MW 311-1-1 MW 311-1-2
NAVSPECWARDEVGRU	355	2000 GAL SOLVENT	MW 355-1 MW 355-2
TACTRAGRULANT	430	1500 GAL FUEL OIL	MW 430-1-1 MW 430-1-2 MW 430-1-3

II. REQUIREMENTS

A. Water samples are to be taken monthly.

B. Perform sampling

1. Samples are to be observed for petroleum product floating on water or for odor of petroleum.

2. Use one bailer per well. As long as the bailer remains uncontaminated and is not used in other wells, it may be reused. Dispose of contaminated bailers.

3. Do not sample if well area is flooded.

4. Keep the well cover plate secured.

5. Keep well riser locking plug in place and locked.

6. Keep vehicle traffic off wells not installed through pavement.

7. Keep the well area accessible for sampling.

C. A record of the sampling results is to be maintained on site.

1. Complete the form in Attachment A.

2. Keep on file for three years.

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3. Fax Attachment A monthly to BCE Environmental branch at 433-6469.

4. Use a separate sheet for each well.

D. If any product is observed or smelled contact the BCE Environmental Branch immediately at 433-6709/6864.

E. If product is confirmed to be released, be prepared to take tank out of service and remove tank contents.

III. OVERFILL PREVENTION

All tank owners shall assure they have procedures in place to prevent overfill spills. Attachment B provides guidance on avoiding overfills.

FC7CLANT

BUILDING NUMBER:

TANK NUMBER:

[illegible]

NOTES: RECORD PRODUCT THICKNESS TO NEAREST 1/8"

USE ONE BAILER PER WELL//DISPOSE OF PETROLEUM CONTAMINATED BAILERS

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 01-09-2001 BY 60322 UCBAW

FAX THIS FORM MONTHLY TO ANN STEPHENSON AT 433-6469

EXAMPLES FOR REMARKS COLUMN: WELL AREA FLOODED. LOCK IS BROKEN. WELL IS DAMAGED, ETC.

COMMENTS:

Enclosure (6)

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What Every Tank Owner Should Know About Overfill Prevention

By Marcel Moreau

Despite the importance of overfill prevention, there is little written material discussing the devices available to prevent overfilling of tanks. The purpose of this article is to provide some background on overfill prevention technologies for underground motor fuel storage tanks.

Some Basic Facts about Fuel Deliveries

To better understand how overfilling occurs and how to prevent it, let's review some facts about how deliveries are made into underground motor fuel storage tanks:

- The volume delivered into the tank is metered when it is loaded into the tanker, but it is not metered when the tanker delivers the product into the underground tank. Fuel transports have compartments to enable them to carry different grades of fuel. When a driver hooks up to a tank, he plans to deliver the entire contents of a fuel compartment into the underground tank.
- The driver calculates the amount of ullage (empty space in the tank) by gauging the tank with a stick and referring to a tank chart. He needs to know that the ullage volume is greater than the volume of the truck compartment that will be emptied into the tank.
- Flow from the tank truck to the underground tank is by gravity. There are no pumps involved. Typical flow rates are about 400 gallons per minute.
- Smaller tanks may have metered deliveries made by pumping the product into the tank. Only a few overfill devices can be used with pumped deliveries.
- A typical delivery hose is four inches in diameter and 20 feet long. It has a volume of about 14 gallons.
- Delivery hoses usually connect to fill pipes with an airtight connection. This is known as a "tight fill." Older, smaller tanks may be filled simply by inserting a length of pipe into the tank fill pipe. This is known as a "loose fill." Only alarms can be used for overfill prevention with loose fills.
- There is only one valve in the tanker-to-tank delivery path. This is the valve

located under the belly of the tanker. There are no valves at either end of the delivery hose itself.

- Fire codes require drivers to stand by their vehicle while the delivery is in progress.

How Do We Get into These Messes?

Typically, a spill during delivery occurs through some miscalculation, such as when the driver attempts to drain a compartment of the tanker that contains more product than there is room for in the tank. In the absence of any overfill prevention devices, the driver ends up with a tank chock full of product, vent lines that are full of product up to the level of product in the truck, and a delivery hose full of product. The driver's options are to wait for customers to buy enough product from the tank to empty the vent lines and hose, or to disconnect the hose and drain its contents into the manhole around the fill pipe.

In the days before tank regulation, the fill pipe manhole had no bottom, and the product drained directly into the environment. Although fill pipe manholes on new tanks are liquid tight, the volume of the hose (14 gallons) is roughly three times the volume of the typical spill containment manhole (5 gallons) around the fill pipe, so draining the hose into the spill bucket is not the answer to the overfill problem.

The federal UST rules say little about overfill prevention systems except to specify at what liquid level the devices must operate.

How Do We Get Out of This Mess?

The goal of overfill prevention is to stop the flow of product into the tank before the tank is overfilled, so that there will be room to drain the contents of the hose into the tank. The ability to drain the contents of the hose quickly and easily is key to successful overfill prevention. Let's look at the technologies, regulatory requirements, operational characteristics, advantages and problems associated with the three common approaches to overfill prevention.

Alarms

Alarms are the least frequently used of the overfill prevention technologies. A typical UST overfill alarm is tied into an automatic tank gauging system. Most automatic tank gauges have the ability to

trigger a remote alarm when the liquid level in a tank reaches a programmed level.

Alarm systems may be set to trigger at 90% of the tank capacity or at a level that allows one minute between the time the alarm sounds and the tank overfills. At a delivery rate of 400 gallons per minute, this translates to 400 gallons below tank top.

When an alert driver hears an overfill alarm, he has sixty seconds to respond by shutting off the delivery valve(s) that are open. If the driver is alert and conscientious and standing close to the valves, closing the valves can easily be done in this time frame. Next, the driver should silence the alarm to restore quiet to the neighborhood. Draining the hose is simply a matter of disconnecting it at the truck. The hose should drain in a few seconds.

Overfill alarms do not slow down the rate of deliveries and provide the most rapid hose draining capability. They can be used with gravity drop or pressurized deliveries and even loose fills.

The most serious deficiency of alarm systems is that most often the alarm itself is remote from the tank fill pipes and bears absolutely no label to identify it as an overfill device. Nor is there any labeling of the tank fill pipes to indicate to the driver that an overfill alarm is installed at the facility. As a result, when the alarm sounds, the driver is more likely to think that a car theft alarm has gone off than to think that his tank is about to overfill.

Alarms must be located in the vicinity of the tank fill pipes, clearly visible from where the driver is likely to be standing, and clearly labeled as an overfill protection device with words like "When alarm sounds STOP DELIVERY IMMEDIATELY." Unless properly located and identified, an overfill alarm is not likely to effectively warn the driver of the impending overfill.

The driver must be present and alert in order for the overfill alarm to be effective.

Drop Tube Devices

These devices replace a section of the drop tube, a thin aluminum tube that is inserted into the tank fill pipe and extends nearly to the tank bottom. There is usually a float activated mechanism on the outside of the tube that releases a

Continues on page 4
Enclosure (6)

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Tank Talk*Overfill Prevention continued from page 3*

valve inside the tube that is forced shut by the flow of product.

Typically, there is a bypass valve that allows a small amount of product to flow (5–10 gallons per minute) after the main valve closes. The bypass valve allows the hose to be drained after the main valve closes. If the delivery is allowed to continue (10 minutes or so after the main valve closes), the bypass valve also closes and the delivery hose can no longer be drained into the tank until the tank liquid level is lowered.

Because these devices completely shut-off the flow of product into the tank, they are allowed to be installed at a higher level in the tank than other types of overfill prevention devices. The original federal rule specified that these devices must be at 95% of the tank capacity. The amendments specify that these devices can be installed at even higher levels as long as the tank top fittings are not exposed to product.

As the primary valve is slammed shut by the force of the product flowing by, it creates a hydraulic shock which typically causes the flexible delivery hose to "jump." The alert delivery driver notices this "jump", closes the delivery valve, and proceeds to drain the delivery hose through the bypass valve. Because flow is restricted initially to the bypass opening, the hose draining should take a minute or so.

Drop tube devices allow the largest percentage of the tank capacity to be used. They are easy to retrofit on existing tanks, as long as the fill pipe goes straight into the tank.

The sudden closing of the valve puts great stress on the delivery system. The hose connections to the tank and truck must be solid or they may pop off, creating a significant surface spill. The drop tube must be firmly attached to the fill pipe, and the shut-off device itself firmly attached to the drop tube, or else the tube will become a spear directed at the bottom of the tank, and may perforate the tank. If the driver is not near the delivery truck, he may return to a situation where the delivery hose is full of product and the bypass valve has closed. He is now faced with the old dilemma of waiting for customers to buy product and lower the liquid level in the tank, or trying to drain a 14-gallon hose into a 5-gallon spill contain-

Fill pipe devices intended for underground tank use are designed for gravity deliveries only. If a delivery is made under pressure and the device activates, something is likely to break.

There must be a tight fill connection between the tank and the delivery hose, or else the fill pipe device will create a surface spill when the valve closes and the product has nowhere to go but up.

The valve mechanism must lift out of the way once the hose is removed so the driver can stick the tank after delivery. Otherwise, the device is likely to be damaged by a frustrated driver trying to insert a gauge stick into the tank.

Vent Line Devices

Vent line devices are commonly known as "ball float valves" or "float vent valves." They are perhaps the most commonly used type of overfill prevention.

They consist of a short length of pipe that extends down into the top of the tank from the vent opening. There is typically a wire cage fastened to the lower end of the pipe, blocking the vent opening. There is typically a $\frac{1}{8}$ or $\frac{1}{16}$ inch vent hole in the pipe to relieve the pressure in the tank. Float vent valves must be installed in tractor fittings to allow maintenance and inspection from grade level.

Float vent valves are classified as "flow restriction devices" for regulatory purposes, and must be set to operate at 90% of the tank capacity or thirty minutes before the tank is overfilled.

The thirty minute criteria is a little complicated to implement. According to measurements made by one manufacturer, in thirty minutes, a $\frac{1}{16}$ inch hole will allow about 120 gallons to flow and a $\frac{1}{8}$ inch hole about 420 gallons to flow.

An additional factor to consider is that when the ball first closes the vent, the air occupying the ullage space in the tank is compressed by the weight of the liquid in the tanker truck. The compression factor is about 25% of the ullage. For example, a 1,000 gallon ullage space would be reduced to about 750 gallons before the $\frac{1}{16}$ or $\frac{1}{8}$ inch hole begins to effectively control the flow rate into the tank. Careful calculations are required to use the thirty minute standard correctly.

Because of the compression of the ullage that occurs when the float vent valve closes, the delivery flow into the tank reduces slowly, and there is no hydraulic shock. Consequently, there is no "boom" and no way for the driver to

know that the float vent valve has closed. The driver becomes aware that something is awry because the delivery seems to be taking too long.

There is an observation window in the delivery hose that will indicate that the hose is full of product, and the driver can feel the hose to tell that the product is not flowing. At this point he can close the delivery valve to stop the delivery.

However, in order for the hose to drain, the compressed air in the ullage space must be allowed to vent through the small hole in the float vent valve. If the driver attempts to disconnect the hose before the pressure has been relieved, the pressure will push the product up through the drop tube and the delivery hose and into the driver's face.

To avoid such an accident, the driver must wait a half hour or more for the pressure to be relieved. After the pressure is relieved, it will take several more minutes to completely drain the hose.

Float vent valves must not be used with pressurized deliveries because, should the float vent valve close, the pressure in the tank will rise 10 to 20 times above the tank's design pressure, a situation that has resulted in tank ruptures.

For the float vent valve to operate properly, the top of the tank must be air tight. Tank top tightness is most often compromised these days by the drain mechanisms of spill containment manholes. If the drain mechanism is not air-tight, it will become the vent for the tank when the float vent valve closes, releasing potentially explosive vapors at ground level. In fact, some drivers have learned to bypass float vent valves by opening the spill containment manhole drain, thus venting the tank through this opening. This is a dangerous practice.

Float vent valves should not be used with retail suction pumping systems because the increased pressure in the tank can push product out through the air eliminator at the dispenser, causing a spill at the fuel island.

Float vent valves are not compatible with coaxial Stage 1 vapor recovery as the float vent valve does not block the vapor return path around the drop tube, and so after an overfill, the driver ends up with both the delivery hose and the vapor return hose full of product with no place to go. ☐

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